PROCEEDINGS

OF

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION.

TELEGRAPH DEPARTMENT,

INDIA.

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Members of the Sub-Committee.

BENGAL—

*The Hon'ble Romesh Chunder Mitter, B.L.

The „ J. W. Quinton, C.S., C.S.I.

The „ Maulvi Abdul Jubbar.

W. H. Ryland, Esq.

Sir Charles A. Turner, Kt., C.I.E., *President.*

PANJÁB (LAHORE)—

The Hon'ble J. W. Quinton, C.S., C.S.I.

W. K. Bignell, Esq., *Departmental Member.*

Sir Charles A. Turner, Kt., C.I.E., *President.*

SIMLA—

The Hon'ble J. W. Quinton, C.S., C.S.I.

Sir Albert Cappel, Kt., C.I.E., *Departmental Member.*

Sir Charles A. Turner, Kt., C.I.E., *President.*

BOMBAY—

*The Hon'ble J. W. Quinton, C.S., C.S.I.

The „ Khan Bahadur Kazi Shahbudin, C.I.E.

Rao Bahadur Krishnaji Lakshman Nulkar.

J. F. Fernandez, Esq.

M. R. Trower, Esq., *Departmental Member.*

Sir Charles A. Turner, Kt., C.I.E., *President.*

POONA—

Same as above.

MADRAS—

*The Hon'ble J. W. Quinton, C.S., C.S.I.

Salem Ramaswami Mudaliyar, Esq., B.L.

Khan Bahadur Mahomed Ishaq.

D. S. White, Esq.

G. G. Charles, Esq., *Departmental Member.*

Sir Charles A. Turner, Kt., C.I.E., *President.*

* Unable to attend.

PROCEEDINGS

OF

THE SUB-COMMITTEE,

PUBLIC SERVICE COMMISSION.

INDIA.

Telegraph.

Section I.—Note by the Sub-Committee.

The staff of the Telegraph Department comprises the Superior Establishment, the Accounts Branch, the Upper Subordinate Establishment, the Signalling Establishment including Telegraph Masters, and the Lower Subordinate Establishment.

The Superior Establishment, in October 1887, consisted of 97 gazetted officers.

The administration of the Department rests with the Director-General on a salary of ₹3,000, assisted by the Deputy Director-General on a salary of ₹2,000, and the Director of the Traffic Branch and the Director of the Construction Branch on salaries of ₹1,225-1,600. The Director-General is also allowed the services of a gazetted officer as Personal Assistant. The superintending and higher executive staff is graded as follows: There are four Superintendents in the 1st grade on ₹1,125-1,500, eight Superintendents in the 2nd grade on ₹900-1,050, twelve Superintendents in the 3rd grade on ₹800, eight Superintendents in the 4th grade on ₹700, and eight Superintendents in the 3rd grade on ₹600. There are 55 Assistant Superintendents. These officers receive on joining their appointments a salary of ₹250, which rises by yearly increments of ₹25 to the maximum of ₹500; but the increment is conditional on efficient service. The Director-General reports that, in considering each year whether the increment should be granted or refused according to the merits of each officer, he maintains a very close review of the qualifications of his staff and the nature and quality of the work done.

The gazetted officers are with two exceptions non-domiciled Europeans. One Superintendent in the 5th grade and one Assistant Superintendent are Eurasians.

On the creation of the Department some officers for the gazetted staff were appointed in India, others were appointed by the Court of Directors and subsequently by the Secretary of State and specially trained in England. Since 1878, appointments to the gazetted staff have been made from, and are now practically confined to, students trained at the Royal Engineering College at Cooper's Hill.

Candidates for admission to the College must be above the age of 17 and under the age of 21 on the 1st July of the year of admission. The first-year's course for students at the College comprises instruction in descriptive engineering, geometrical and freehand drawing, surveying, chemistry accompanied with work in the laboratory, physics, mathematics, including plain analytical geometry, elements of the calculus, statics, dynamics, &c., geology, and French or German. At the end of the first year the students are divided into special classes according as they are to be educated for engineering or telegraph work. The telegraph students in the second year go through a course of instruction in mathematics, applied mathematics, mathematical physics, chemistry with work in the laboratory, telegraphy, telegraph construction, signalling and accounts. At the final examination on the conclusion of the two-years' course the Indian appointments are offered to the students who have obtained the highest marks. It is required that they should be British subjects of good moral character, of sound constitution, and free from any physical defects which would render them unfit for employment in the Department.

While resolving for the present to recruit the superior staff from the Royal Engineering College, the authorities in England and in India have been alive to the importance of recruiting this branch of the Department also in India, and of providing sufficient opportunities for technical instruction in this country. In a Despatch No. 8 T, dated 10th April, 1879, the Secretary of State pronounced it on every account desirable that Native agency should, as far as possible, be employed in the grade of Assistant Superintendent, and considered it probable

that the adoption of this course might admit of a sensible reduction of the European portion of the staff below its then actual numerical stength.

In reply, the Government of India, in a Despatch No. 10 T, dated 17th March 1880, stated that it had had the question of the employment of Natives of India in the executive duties of the Department under consideration, but that the work of an executive telegraph officer required a combination of great physical endurance with considerable scientific attainments, and that it was aware there might at present be difficulty in securing in this country the services of those possessing the requisite qualifications. As a tentative measure the Government of India proposed the creation of a lower executive establishment, and intimated that if that establishment should prove as effective as it hoped, it would be possible even with the increased and increasing work to diminish largely the staff of Assistant Superintendents. Estimating the annual number of casualties in the superior staff at five, it proposed that the Secretary of State should arrange for the appointment of only two Assistant Superintendents annually,—the first two to land in India in the autumn of 1882—that the three vacancies unprovided for should be allowed to lapse or be filled experimentally by appointments in this country, as the service might require, and that the pay of appointments filled in India should be fixed at two-thirds of the pay of similar appointments filled in England.

In a Despatch, No. 23 T, dated 16th September, 1880, the Secretary of State fully approved of the principle of the establishment of a lower executive service, and sanctioned the substitution for the then existing staff of seven Sub-Assistants and 24 Inspectors, of a staff of 50 Sub-Assistants to be divided into two grades, the pay of the lower to commence at ₹150 and the pay of the higher to rise to a maximum of ₹350. He at the same time ordered that the staff of Assistants should thereafter be fixed at 70, and that all members of the then existing staff of 87 Assistants in excess of 70 should be deemed supernumeraries. He also approved of the proposal to assign to persons engaged in India salaries on the two-thirds scale; and he suggested that the Government of India should consider whether suitable technical education might not be provided at the Civil Engineering Colleges or other Institutions in India in those branches of science which were needed to qualify persons for admission into the Telegraph Service

The Government of India, in a Despatch, No. 5 T, dated 23rd April, 1881, intimated its intention to establish a class at the Thomason Civil Engineering College for the instruction of candidates for the superior establishment of the Telegraph Department, as soon as the final instructions of the Secretary of State on certain proposals then made were known.

The Secretary of State, on September 8th, 1881, expressed his entire approval of this intention, and directed the Government of India to consider whether similar arrangements could not be made at the Engineering Colleges of Madras and Bombay.

The Government of India, on the 27th October, 1881, published a Resolution, Nos. 186-9T.E., in which, after mentioning that the number of calculated vacancies in the superior staff would be three and four in alternate years, and that it had arranged for the appointment of two officers annually in England, it notified that the remaining vacancies would be filled as occasion might require by officers trained in India, as soon as arrangements for training them were completed. It was added that Natives of India appointed in this country would be engaged on salaries at two-thirds of the rates notified for officers recruited in England.

On the 26th January, 1882, in advertence to this Notification, the Secretary of State, presuming that by officers trained in India were meant Natives of India, desired to be informed of the steps which had been, or might be, taken for providing technical instruction in Madras and Bombay as well as at Rurki for those Natives of India who might offer themselves as candidates for admission to the Department.

The Government of India, on the 8th July, 1882, explained that, inasmuch as the number of the superior officers was nineteen in excess of the scale sanctioned on the recent reorganization of the Department, and as it had been resolved to appoint annually two officers trained in England, it will necessarily be some years before the supernumerary officers can be absorbed and vacancies become available to be filled up by Natives of India, and the Director-General reported that even if the steps then contemplated were taken for reducing the numbers to the sanctioned strength, it would be at the least six years before that object was attained, and it would be premature to provide for the training of officers in India till their prospects of entering the Department became less remote.

Now that the main lines of communication have been established and the organization of the Department has been completed, it has been resolved to reduce the number of officers on the superior staff to 84, and in order to expedite promotion an inducement has been offered to secure the more speedy retirement of some of the senior officers in the form of special pensions.

Promotions to and in the grades of Superintendents are made by the Government of India on the recommendation of the Director-General.

Officers of the superior establishment are entitled to the benefit of the leave and pension rules applicable to Uncovenanted officers, and such of them as have been trained in England or whose names are scheduled are entitled to special privileges. Under Resolutions of the Government of India, No. 377, dated 23rd January, 1885, and No. 1709, dated 1st July, 1885,*

* Printed at page 22 of Volume relating to Telegraph Department.

officers specially trained who entered the Department under covenant with the Court of Directors, officers under covenant with the Secretary of State, and officers appointed from Cooper's Hill, are entitled to graduated pensions subject to a certain maximum after 10 years' service on medical certificate and after 20 years' service without such a certificate; officers who have attained the position of Director-General or Deputy Director-General and served in those ranks for three years are entitled to extra pensions of ₹2,000 per annum, and officers who have attained and held for three years the rank of Directors or Superintendents of the 1st grade are entitled to extra pensions of ₹1,000 per annum.

The Director-General, Deputy Director-General, and Directors constitute what is termed "the Direction." The local area over which the normal operations of the Department are carried on is distributed into 17 divisions—Arrakan, Assam, Bellary, Bengal, Bombay, Burma, Upper Burma, Dacca, Ganjam, Indore, Madras, Malabar, Nagpur, Oudh and Rohilkhund, Punjab, Rajputana, and Sindh and Beluchistan. Each of these divisions is administered by a Senior Superintendent of rank not below that of the 3rd grade. His executive staff consists of 4th and 5th grade Superintendents, Assistant Superintendents or Sub-Assistant Superintendents, each of whom is in charge of or attached to a sub-division or work of construction or important office. Other Superintendents hold the appointments of Chief Superintendent, Check Officer, Electrician, Chief Superintendent of Stores and Chief Superintendents of Workshops. The duties of these officers obviously vary with the branch of work on which they are engaged, but they all entail responsibility and involve in a greater or less degree the careful supervision of numerous subordinates, inspection of work, control of expenditure, checking of estimates, and the designing or encouraging improvements in electrical apparatus and lines of communication, and in the general working of the Department.

In addition to the normal operations of the Department it is required to furnish a staff to accompany military forces operating on or beyond the frontier, and this staff is ordinarily placed in charge of an experienced Superintendent.

On the arrival of newly-appointed Assistant Superintendents in India, they are, as a rule, posted for a short period to the Telegraph Workshops at Calcutta, that they may become familiar with the principal instruments and apparatus used in the Department, of which they are required to prepare accurate drawings. They are then, when it is possible, employed in a large Telegraph office under the charge of a superior officer; and when they have acquired facility in signalling and receiving messages with the instruments used in this country, they are employed on telegraph construction or placed in charge of a sub-division. The Director-General is understood to approve of the system of education pursued at Cooper's Hill, as calculated to secure officers with the necessary scientific training for efficient service, and he observes that scientific study must be constantly pursued, and that on occasions physical qualifications are of no less importance than intellectual ability.

He mentions that a Eurasian officer, who obtained his appointment at Cooper's Hill, has suffered somewhat from inferior physique, but that another Eurasian, appointed before the system of selecting officers from the students of the Royal Engineering College was established, has proved himself a first rate executive officer.

The Accounts Branch is officered by the staff of the Public Works Accounts Department.

Inasmuch as the Upper Subordinate Establishment is recruited from the Signalling staff, it will be convenient to deal with it after some account has been given of the latter branch.

The sanctioned strength of the Signalling Branch is 1,404, and according to a return furnished in October of the present year, the number of its officers was then 1,286. But there are also attached to the Department ten British soldiers, of whom one, who is employed in the workshops, receives a salary of ₹200 from the Department. Of the 1,286 officers shown in the return, 147 are domiciled Europeans, 889 are Eurasians, 209 are Hindus, 7 are Mahomedans, and 34 are Natives of other creeds.

The Signalling Branch comprises a General and a Local Service; the members of the latter engage to serve within certain defined limits, roughly speaking, the limits of the Presidency or Province for which they are enlisted: the members of the General Service engage to serve in any Province or place to which the operations of the Department may extend. The creation of a General Service has been suggested by the necessity for obtaining trained men to do duty in Provinces in which the local recruitment is insufficient, or when new divisions are constituted. As an inducement to attract officers to the General Service, and to compensate them for the expense entailed by the transfers to which members of this service are liable, they receive higher rates of pay than are allowed to the officers of the Local Service. Local Service men are permitted to volunteer for General Service if they are fit for it and their services are required, and General Service men may be transferred to the Local Service if the requirements of the Department admit of it.

The rate of pay is also regulated by the degree of efficiency attained in technical work, there are consequently four grades of Signallers in each service, termed respectively superior, good, average, and indifferent; but the indifferent grade is a punishment grade.

The sanctioned strength of these grades respectively is as follows:—Superior, 10 per cent.; good, 30 per cent.; average and indifferent, 60 per cent.

The pay of each grade is further regulated by length of service. The rates are shown in the following table:—

Years of service.	Local scale.				General scale.			
	Indifferent.	Average.	Good.	Superior.	Indifferent.	Average.	Good.	Superior.
	₹	₹	₹	₹	₹	₹	₹	₹
0	20	27	33	40	30	40	50	60
1	22	29	37	44	33	44	55	66
2	24	32	40	48	36	48	60	72
3	26	35	43	52	39	52	65	78
4	28	37	47	56	42	56	70	84
5	30	40	50	60	45	60	75	90
6	35	44	55	66	52	66	82	99
7	38	48	60	72	57	72	90	108
8	41	52	65	78	61	78	97	117
9	44	56	70	84	66	84	105	126
10	47	60	75	90	71	90	112	135
11	51	65	81	98	77	98	122	147
12	55	71	88	106	83	106	132	159
13	59	76	95	114	89	114	142	171
14	63	81	101	122	95	122	152	183
15	67	87	108	130	100	130	162	195

In order to provide technical training for candidates for employment in this branch, classes are formed at several centres open to persons without distinction of race, who are physically qualified for employment, are between the ages of 16 and 20 years, and have passed a qualifying examination in English dictation and composition, geography, arithmetic, and algebra up to simple equations. The students at these classes are termed probationers, and the period of training is regulated by the ability of the candidates: the full period allowed for training in the classes is ordinarily nine months. Before admission as paid Signallers, probationers are required to pass an examination in elementary electricity and magnetism, office routine, signalling, the use and nature of instruments and dictation. Special classes have also been formed for pupils of the Free School, Calcutta, and of the Lawrence Asylums at Sanawar and Ootacamund, but it is understood that the first named of these classes was unsuccessful and has been discontinued. In the Lawrence Asylum classes the instruction in the subjects of electricity and magnetism is somewhat more extended than in the ordinary training classes, and the course, which extends over a period of two years, also includes practical instruction in the elements of telegraph construction and repairs.

All Signallers are first appointed to the average grade, and receive the minimum pay of that grade, and may attain the maximum pay by fifteen yearly increments. Length of service gives no claim to promotion to the good or superior grade, which are reserved for officers of exceptional merit and ability. Examinations, open to all members of the branch, are held periodically when a sufficient number of vacancies is available, in order to determine what officers are qualified for promotion to the good and superior grades. The test is not confined to technical and educational attainments, but conduct and special services are taken into consideration and marks are allotted for them. For exceptionally good service, the Director-General occasionally awards promotion without examination. When the number of officers who have proved their qualification by examination is in excess of the number of vacancies in the grade for which they have qualified, the names of those who cannot be at once admitted to the grade are placed in a supernumerary list, and they are appointed as vacancies occur. In order to increase and maintain the efficiency of the staff, technical circulars and hand-books besides text-books on electricity and telegraphy are available for reference and private study in every Telegraph office; an annual examination is also held to test the manipulative ability of the officers, and they are required to maintain certain minimum standards to preserve their places in the grades. It will be seen that some complaint has been made that this rule operates harshly in the case of men of advanced age, but the standards are pronounced by officers qualified to express an opinion as not excessive. Members of the Signalling staff, who show special aptitude, are employed as testing Telegraph-Masters at the large stations at which the lines are regularly tested. They are also attached, when practicable, to the office of the Electrician, and assist him in cable testing and experimental research. In addition to the qualifications of a Signaller which Telegraph-Masters are ordinarily required to possess in a high degree, they are required to give proof of good business habits, tact in dealing with the public, and the power of controlling their subordinates and maintaining discipline.

In addition to their emoluments as Signallers, Telegraph-Masters draw allowances of ₹80, 60, 40 and 20 for the charge of offices or training classes, the charge of bodies of Signallers on duty in the larger offices, and special testing and inspection duties. These allowances are local and not personal; but inasmuch as they are taken into account in determining the amount of pension, complaint has been made that a Telegraph-Master may by transfer to a station, at which the allowance is smaller than that which was attached to the office from which he was transferred, suffer a serious diminution in the amount claimable as pension.

The Director-General pronounces the Telegraph-Masters of the Department to be as a class a most efficient and intelligent body of men.

The Upper Subordinate Establishment is recruited from the members of the Signalling staff who have attained to the superior grade, the selection being made with reference to special aptitude, conduct, and physique, rather than to length of service; the qualifications of officers for line work are tested by attaching them to a work of construction: officers who have thus proved their efficiency enter the 2nd grade of Sub-Assistants and their first year's service in that grade is regarded as probationary. Promotion to the first grade is regulated by vacancies. The number of officers in these grades is contingent on the number of officers of the Superior Establishment, the Government of India having ruled [No. 18 T.E., Public Works Department, dated 8th February, 1886] that the aggregate number of officers of the Superior and Upper Subordinate Establishments shall not exceed 165. At the date of the return before mentioned, there were 26 Sub-Assistants in the first grade on salaries of R275-350, of whom 13 were domiciled Europeans and 13 were Eurasians; and 30 Assistants in the 2nd grade, on salaries of R250-275, of whom 13 were domiciled Europeans, 15 were Eurasians, and 2 were Hindus.

The most intelligent and reliable members of the Upper Subordinate Establishment are chosen for sub-divisional charges, and the attainments required of them are consequently similar to those of Assistant Superintendents, though less in degree. The Director-General reports that "they are not quite so mobile as young officers from England, nor are their ideas of discipline so correct; while, on the other hand, their mode of enforcing it may be less facile; but their introduction into the executive branch of the service in charge of minor sub-divisions has nevertheless proved successful on the whole." At the date of his report 14 Sub-Assistants were in charge of sub-divisions and 11 were in charge of construction works.

There is a provisional class of 1st grade Inspectors on R120-150. But this class, it is understood, will be ultimately abolished. Of its four members one is a non-domiciled European, two are Eurasians, and one is a Hindu.

The leave and pensions of the Signalling Branch and of the Upper Subordinate Establishment are regulated by the general rules of the Codes applicable to Uncovenanted Officers, except as regards the inclusion of local allowances in the computation of the pensions of Telegraph-Masters.

Employment in the Signalling Branch is sought mainly by domiciled Europeans, Eurasians, and Hindus. In regard to the relative efficiency of these classes, the Director-General reports that not much distinction can be made between the two former; that they have much the same habits and tastes; that men of both classes when steady and of good health and intelligence make excellent Signallers; that Natives, when young, of good physique, and well acquainted with English, are in their own districts on a par with Europeans and Eurasians, but that they are less efficient and enduring when employed at a distance from their homes, and in a station of which the climate does not suit them; that with increasing age Natives become more immobile than Europeans and Eurasians even in their own Province, and less readily adapt themselves to strange surroundings; and that on emergencies, such as the interruption of communications by floods or cyclones, they are, as a rule, distinctly inferior to the other classes in activity and fertility of resource. In certain unhealthy divisions in which the Department carries on its operations, local Signallers are but scantily procurable, and it is necessary to depute officers from more healthy districts, and from time to time to relieve them. This causes frequent transfers to which Natives are peculiarly averse. Hence the Director-General is led to conclude that a mixed signalling staff is necessary to meet the requirements of the Department.

The Lower Subordinate Establishment consists of Linemen and Sub-Inspectors.

Linemen are required to be able to make joints in wire, bind wire to insulators, fit insulators and brackets, supervise the fitting posts, and detect all line faults which would interrupt or hinder communication. They are recruited from coolies employed in telegraph work, who exhibit sufficient intelligence to acquire the necessary technical skill, and sufficient physique to support the exposure to climate which the work at times entails. Preference is given to men who are able to read and write. The wages of linemen are regulated by the labour rate prevailing in each division, and vary from R8 to R20.

Sub-Inspectors are selected from linemen of good character and general intelligence, who can read and write the vernacular, and possess the necessary technical knowledge and ability to manage working parties. Sub-Inspectors, who are classed in three grades, must be competent to lay out and construct temporary lines and carry out all details connected with the construction of permanent lines. To qualify him for promotion to the 2nd grade, a Sub-Inspector must be able to keep accounts and travelling journals in the vernacular, while promotion to the 1st grade is given only to men of exceptional acquirements, including a knowledge of English.

The salary of a Sub-Inspector in the 3rd grade is R25, in the 2nd grade R25 to 40, and in the 1st grade R50 to 80. The lower subordinate establishment is manned by the labouring class, and applications for admission to it on the part of members of any other class are rare. The Director-General states that owing to the large field of selection no difficulty has been felt in obtaining efficient linemen, and that the number of linemen qualified to fill

the several grades of Sub-Inspector is, as a rule, sufficient to meet the requirements of the Department.

Mr. Steele, a Signaller of the 2nd grade, employed in the Central Telegraph Office Calcutta, urged on behalf of the Signallers, Telegraph-Masters, and Sub-Assistants, that promotion to the upper grades should be open to persons in the lower grades who are willing to undergo a technical examination as to their qualifications, and that examinations should be regularly held to afford such officers the opportunity of promotion.

Mr. Bignell, Chief Superintendent of Telegraphs, Punjab Division, who entered the Department in 1857, expressed an opinion that the time has not yet arrived when Telegraph officers might be educated in India for the superior grades of the Department, and that the education which men undergo who enter the Telegraph Department in India is not sufficient to qualify them for the superintendence of divisions. He remarked that a further disqualification on the part of such persons consists in their want of knowledge of the world. With regard to military operations, he considered that the men in charge of field telegraphs should certainly be Europeans, as it would be difficult to find Natives possessing the energy and coolness required in emergencies, and as extreme accuracy is necessary in military signalling in connection with the transmission of orders. He did not think that any ground exists for the complaint that the promotion of Signallers is not carried out uniformly, and he considered it for the future good of the Department that two men should be recruited annually from England. He saw no objection to the employment in the superior grades of the Department of persons born in India but educated in England; but he did not consider that the education now given in India is such as to secure men of the character required for those grades. He had found the men recruited from Cooper's Hill to be very well qualified in regard to their technical education, and if men are procured from England, he regarded Cooper's Hill as a good school from which to procure them. He advocated pensions being paid at the rate of two shillings to the rupee.

Mr. Duthy, a Superintendent of the 5th grade, who joined the Department in 1869, complained of the slowness of promotion and of its effect on probable pension. He also complained that officers of the Telegraph Department are not granted the allowances given to all other officers of the Public Works Department in Presidency towns, though the power to grant such allowances has been vested in the Director-General by the Government of India. He also referred to the fact that officers of the Department are required, when in camp, to supply themselves with camp equipage at their own expense, although they receive no larger travelling allowances than are granted to other civil officers, who are provided with tents at the cost of Government, and although their covenant with the Secretary of State requires that they should be provided with all the articles necessary for the performance of their public duties. He further urged that pensions should be paid in sterling in England at the rate of two shillings to the rupee, and he pointed out that the frequent transfers to which officers of the Department are subject involve most serious expense to those concerned.

As a means of effecting savings in the Department, he advocated the employment of Sub-Assistant Superintendents in small executive charges in substitution for Assistant Superintendents, and the pensioning off of the higher officers of the Department; all of whom would not require to be replaced, as there are now more officers than are necessary. He considered it desirable to recruit the superior appointments to a limited extent (three out of five vacancies) in England, but he added that men might be obtained from Rurki who would be competent to enter the Department in the superior grades if the college afforded the necessary instruction, which is not at present the case, there being no course of telegraph engineering at Rurki. He had no reason to suppose that any unfairness had been shown to Signallers in the matter of promotion.

Mr. Murray, Sub-Assistant Superintendent, 2nd grade, who had entered the Department at the age of eleven as a Signaller in 1863, complained of the slowness of promotion and expressed an opinion that the Sub-Assistants' grade should be placed on the same footing as the Sub-Engineers' grade in the Public Works Department, and that a certain number of appointments in the superior grades should be reserved for Sub-Assistants who are thoroughly acquainted with the working of all branches of the Department. He also thought that when in charge of sub-divisions, Sub-Assistants should receive the same travelling allowances as Assistants.

Mr. Reynolds, who joined the Department in 1868, and is at present officiating as Director, Traffic Branch, described the duties which devolve on the principal officers of the Department under the Director-General. He explained that, as Director of Traffic, he is required to regulate the establishments in all signal offices throughout the country in accordance with traffic requirements; to deal with electrical questions and improved methods of working in conjunction with the Director-General or Deputy Director-General, and also to consider all projects for extensions. He further explained that the control of the actual electrical working devolves primarily on the Director of Traffic, who, moreover, conducts all ordinary correspondence in connection with tariff matters (including the tariffs with foreign countries), message revenue, signal office regulations, discipline, and arrangements with the Press and Postal Departments. In regard to the duties of a Superintendent, he explained that officers of that class, when not holding special appointments, such as the charge of stores, workshops, check office, &c., usually have charge of a division, the size of which is arranged in accordance with traffic

requirements and facilities for travelling. For the general administration of telegraphic matters within his division the Superintendent is responsible, subject to the regulations of the Department, and also for all construction work and for the proper adaptation of establishments to actual requirements. Mr. Reynolds also explained that Assistant Superintendents have charge of sub-divisions varying from four to six hundred miles in size, and that their duties include the maintenance of communication, the inspection of offices, the carrying out of repairs and construction works, the examination of the office staff in signalling, and in many places the technical supervision and maintenance of the railway offices as well as of the telephone lines within the limits of the sub-division. The duties of Sub-Assistant Superintendents, which class has been very much enlarged of late years, are similar to those of Assistant Superintendents, but of a less important nature. There is also a class of officers known as Honorary Assistant Superintendents, consisting of men to whom that title was granted in consideration of long and good service as Sub-Assistants, and who receive the same salary as Sub-Assistant Superintendents of the 1st grade. Mr. Reynolds observed that several of the Sub-Assistant Superintendents are in charge of the less important sub-divisions, the number of which constantly increases, and that, as a rule, they perform their duties with efficiency. He considered that there are a large number of sub-divisions which might with advantage be held by officers of this class. All the Sub-Assistant Superintendents enter the Department as Signallers on R40, but none of them have been trained at Rurki. As regards recruitment for the superior grades of the Department, Mr. Reynolds expressed a preference for recruiting from the signalling branch, because it would give encouragement to the lower service if men knew that they could rise from the working to the controlling grades; but if the supply of officers from England is not maintained or is reduced, he considered that it would be better to resort to Rurki for recruits for the higher grades. He believed that the Engineers educated at Rurki were considered competent by the Department under which they served. In reply to a question whether any of the officers who at present have charge of sub-divisions are qualified to become Assistant Superintendents, Mr. Reynolds said that men of this class are, as a rule, wanting in resource and in capacity and will to take the initiative and to incur responsibilities, while their deficiency in general education and want of social position would necessarily place them at a disadvantage in securing departmental interests. At the same time he advocated an opportunity of promotion being given to qualified men who have risen from the working grades. He could not, however, advocate recruitment exclusively in India, inasmuch as, in a progressive science such as Telegraphy, it is a great advantage to have, at all events, a certain number of men in the superior grades who are in the habit of taking leave to England and keeping touch with European Telegraphy and who personally know the officials of other countries. He doubted whether many youths recruited in India would frequently visit England. In answer to a question regarding the effects of the block in promotion upon the Cooper's Hill men, Mr. Reynolds observed that inasmuch as these officers receive during the first ten years of their service annual increments of salary for approved service, irrespective of vacancies, and inasmuch as none of them have yet served ten years, the block in promotion has not yet affected them. He also explained that a previous witness (Mr. Duthy) was mistaken in supposing that Presidency allowances have been sanctioned for Telegraph officers, and that, in regard to the frequency of transfers, the work of the Department, especially on occasions of emergency, demands great mobility on the part of the small staff of superior officers. He expressed his belief that every Native officer of sufficient service in the Department has had an opportunity of becoming a Telegraph-Master, but that many have shown themselves unfit for promotion to that post on account of their incapacity to control European and Eurasian subordinates. He observed that the reason why Natives of Asiatic parentage do not enter the Department more freely, is probably that the work is too hard for them, that it involves liability to night duty and distant transfers; and that it does not offer the dignity and repose which are so attractive to the higher classes of educated Natives, who prefer service in their own Province. At the same time he allowed that instances are not wanting in which Natives had done well in the subordinate grades. Lastly, Mr. Reynolds remarked that, while he saw no objection to a partial recruitment in India for the higher grades of the Department, he thought that it would be a mistake to discontinue altogether recruitment in England, inasmuch as by recruiting in England the tone of the Department is maintained and men trained in India are encouraged to work up to the English standard. He observed:—"Our obligations to the Government, the public, and the foreign administrations with which we are associated in carrying on the international telegraph traffic of the world, require that our efficiency should be most rigidly maintained."

Mr. Brooke, Director, Construction Branch, who joined the Department in 1857, expressed an opinion that the subordinate staff of the Department render efficient service in small sub-divisions, but that, when placed in charge of larger sub-divisions, they do not seem to have a sufficient grasp of the work. He also thought that they are not strong enough to maintain discipline, and that, owing to their inferior education and social status, they get into trouble with local officials which men of a better class would avoid. He did not know any man in the subordinate grades whom he considered fit for promotion to the superior grades. He observed that Asiatic Native subordinates had been placed in charge of sub-divisions because qualified men had not been available. He considered the officers obtained from England to be very good men, and he remarked that, being well-grounded in the theoretical part of construction, they very soon become capable of undertaking practical construction, in which, on first arrival in India, they are required to go through a course of instruction at the Calcutta Workshops.

Having learnt the duties connected with construction, they are appointed to the charge of sub-divisions.

Colonel Mallock, Deputy Director-General, who entered the Department in 1861, considered that the superior grade of officers should certainly come from England, and that, if possible, they should be employed, either before or after entering the Department, in connection with the British Postal-Telegraphs, so as to establish a link between the two systems. He pointed out that while reductions are being carried on in the superior grades, a very large increase is taking place in the number of messages transmitted, and that this increase of work requires that the men employed should be more accustomed to traffic business and varying apparatus. He referred to the sudden development of traffic which took place during the cold weather of 1886-87 in connection with the military operations in Burma as illustrating the necessity for resorting to temporary expedients, which can only be devised by men who thoroughly understand their business. He did not think that the combination of Postal and Telegraph offices accounted for the very large increase of business which has taken place. In regard to the work of inspection, he observed that the experiment of Native Inspectors had been tried in three sub-divisions of railways, but that it was impossible to form an opinion as to the result, as the men were only placed in the position of Assistants. He referred to the case of one Native who was tried as an Inspector on the East Indian Railway, because of his extraordinary intellectual capacity, but who failed in consequence of inability to exercise sufficient authority in his office and to enforce discipline. He added that there was another Native in the Department (a Parsi) who would probably in time prove efficient as an Inspector on railways. In reply to a question regarding the merits of the men who have been promoted from the subordinate to the superior grades of the Department, Colonel Mallock pointed out that no promotion to the superior grade has been made during the last twenty years, and that the requirements of the Department in regard to technical qualifications have enormously increased with the general development of operations, and especially since the establishment of the cable to England. In regard to recruitment, he observed that the increase of work, combined with the reduction in the number of officers in the superior grades, renders it essential that the utmost efficiency should be secured, and these considerations, coupled with the fact that the Department is constantly called upon to supply officers in connection with military expeditions, afford reasons why the upper branch of the Department should be recruited from England. With regard to the existing system of recruitment from Cooper's Hill, Colonel Mallock pointed out that recruits for the Telegraph Department come out to India after having undergone a shorter training, and with less pay and worse prospects than those recruited for the Public Works Department, and that this inferiority could not but result in rendering the Telegraph service less attractive to officers of the best type. He was not in favor of offering any direct appointments in the superior grades of the Department for competition in India, because, with the very limited number of youths of suitable education and character, there would probably be no real competition. He attached great importance, moreover, to officers of the Department possessing a general English mode of thought; and he expressed his opinion that the Department requires a class of men who, having passed out of a public school and having been to a technical college in Europe, are able to hold their own with others, and are also likely to keep themselves acquainted with the progress continually made not only in England but throughout the whole of Europe. He did not consider the training given at Cooper's Hill to be equal to the training which the earlier recruits obtained at Southampton for telegraph work in general: and he observed that men obtained under the earlier system adapted themselves to their duties more readily; but he admitted that they were appointed at a more advanced age. He attached the greatest importance to officers of the Department, before or after joining the Department, becoming acquainted with the details of European telegraphy. He considered the rates of pay attached to appointments in the Department sufficient to attract the services of young men, if there were a continuous flow of promotion, instead of the present block, bearing in mind the difficulty of finding openings for employment in England; but that higher rates of pay would be necessary to secure the services of men of a riper age and possessed of higher qualifications. In regard to Signallers, Colonel Mallock observed that the Lawrence Asylum at Ootacamund undoubtedly supplies the best men. He remarked that the majority of the "local" Signallers are men of pure Asiatic parentage, but that the "general service" Signallers afford a reserve for all India and for operations beyond the frontier. In the case of the "local" Signallers, unwillingness is displayed to transfers to other Provinces. He added that general service Signallers are exposed to various inconveniences on occasions of stress of work or extensions, and he referred to the necessity in India for training every man in the Department and to the impossibility which exists in India, to a far greater extent than in more advanced countries, of obtaining a supply of qualified men on the occurrence of an emergency.

Mr. Luke, C.I.E., who entered the Department in 1868, and who is an Acting Superintendent, 1st grade, considered that the superior grades of the Department should continue to be recruited in England, as it is desirable that the best class of men available should be obtained. He expressed concurrence in the view that inasmuch as the Department is reducing its numbers, and as the complexity of the work and its area increase, greater efficiency is required in each individual and a higher average of efficiency throughout the service. He explained that he had been employed on the occasions of the first and second Afghan Campaigns, from 1875 to 1880, and that he was in charge of a Telegraph line stretching from Peshawar to Kabul. On such occasions it is essential that the officers of the Department, having to associate on field

service with officers of a certain standing, should be on the same social footing as those with whom they are called upon to act, and should have the English training and education which alone can fit them for that kind of work. He explained that for the construction of the line of Telegraph between Peshawar and Kabul, local labour was, when necessary, supplemented by working parties from Native regiments, and that, when camping out at a distance from the military forces to which they were attached, it devolved on the officers of the Department to take military command of those parties. On one occasion, he added, an officer of the Department was assigned military duties in addition to his ordinary duties; and generally during the campaign he had been as much subjected to danger as the combatant officers; indeed, more so, having at times to carry on work at a distance from the military posts. Mr. Luke referred to the fact that it had been finally determined not to establish a Military Field Telegraph, the result of which decision would be to oblige the army to rely on the Civil Department and to cause the Sapper organization, called the advance Telegraph, to be subordinated to the Chief Civil officer in the field. He also believed that it is in contemplation to give relative military rank to all Telegraph officers while in the field. Considering the circumstances of India, he thought that the Telegraph Department in India compared favorably with those whose operations he had witnessed in other countries. In India, however, there is no competition, Telegraphy being a Government monopoly, and the Department is consequently not driven to make improvements. Having regard to the fact that the circumstances of India are so different from those of other countries, he did not think it desirable to establish a competitive examination in India for appointments in the Department. If the superior grades of the Department were recruited from Natives of India, he did not consider that a class of men would be procured who would be likely to keep touch with what is going on in Telegraphy in Europe and America, or that the efficiency of the Department could be maintained. Mr. Luke pointed out the immense political importance of the Telegraph Department in India, and dwelt on the necessity for recruiting for the Department a high class of men on whom reliance could be placed in times of emergency. He thought that better trained men would be obtained from Cooper's Hill, if the course for the Telegraph Department were the same as that for the Engineering Department, the period of training being increased by one year either at Cooper's Hill or at some school where the necessary technical instruction could be given. He referred to the fact that the work of the Telegraph Department is more arduous than that of the Public Works or Forest Departments, and that it sometimes involves great exposure. Lastly, he expressed his opinion that if equally good men are to be procured for the Telegraph Department as for the Public Works and Forest Departments, the officers of the former Department should be placed on the same footing in respect of pay and prospects of promotion as the officers of the Department of Public Works.

Mr. Black, a Telegraph-Master, who had risen from the Signaller grade, and who entered the Department in 1856, observed that the promotion of Signallers to the "good" and "superior" grades depends upon good work or upon working under exceptionally difficult circumstances; and that those Signallers who are posted to large offices or to code lines have, therefore, far better chances of promotion than those posted to small stations where little or no code work is done. He considered that the present number of European officers in the Department is in excess of the requirements of the service. He objected to the existing constitution of the Signalling staff as involving the result that men of the same length of service and with the same qualifications might be in receipt of differing rates of pay, and he pointed out that the "local scale" is not popular with Europeans and Eurasians. He referred to the precarious nature of the allowances granted to Telegraph-Masters, and advocated the introduction of a system of progressive salaries throughout the Department. He further expressed his opinion that the annually-recurring signalling test is unnecessarily severe, and that it presses hardly upon men who have been in the Department for many years; and he asserted that the liability to frequent and distant transfers, with inadequate travelling allowances, produces a feeling of discontent and anxiety. On cross-examination he admitted that transfers are made on public grounds (if not as a punishment), and that it is the object of the Department to locate the most efficient men in the most important offices. He advocated the recruitment of the superior branch of the Telegraph Department from England, as enabling the Department to keep touch with other telegraphic systems throughout the world. He referred to the distaste for night duty which is almost universally felt by Natives, and which tends to deter them from entering the Department. He did not think that the paucity of Natives in the Department is due to the reluctance of those who make appointments to appoint Natives, as there is an examination for admission which is open to all.

Mr. Keely, a Telegraph-Master, who entered the Department as a Signaller in 1873, considered that the subordinate officers of the Telegraph Department are not so well paid as those of other Departments, while their prospects are worse.

Mr. Quinn, a Telegraph-Master, who entered the Department by competition in 1865, observed that the Telegraph-Masters consider it a grievance that the Sub-Assistant grade, which is open to the "superior" lower grades, is closed to the "good" and "average" grades. In regard to Telegraph-Masters' allowances, he pointed out that the effect of transfers was in some cases to deprive Telegraph-Masters of the allowances and thus to reduce their pension; and he objected to the practice of making transfers without first ascertaining whether an appointment of equal status is available for the transferee. He also objected to the annual signalling examination as being unnecessarily severe and as involving hardship to old employés. He

admitted that the business of the Department had increased enormously in amount. In reply to a question why there were not more Natives amongst the Signallers, Mr. Quinn explained that the working hours of the Department are inconvenient to Natives in connection with caste observances. He objected to the frequency of transfers, which entail considerable expense on those concerned.

Mr. Bocarro, an Assistant Superintendent in the Bombay Secretariat, who represented an East Indian Association, complained of the rule which requires that the annual examination in signalling should be undergone by Signallers of over 15 years' standing, under pain of reduction. He urged that it is hard to call upon Signallers to conform to regulations which were not in existence when they entered the Department. He submitted that Telegraph-Masters in the "good" grade should be eligible for Sub-Assistantships in the same way as Telegraph-Masters in the "superior" grade. He also urged that in a Department such as the Telegraph Department, which has to deal with important official information, it is of vital importance that the employés should be exclusively British subjects.

Mr. Trower, Chief Superintendent, Bombay Division, who joined the Department in 1868, explained that Signallers are appointed according to the results of examinations held when a sufficient number of vacancies exist, and that although the examinations are open to all castes and creeds, the better educated candidates consist of Europeans and Eurasians. He advocated the recruitment of Assistant Superintendents from England, on the ground that considerable responsibilities are thrown upon them, which necessitate a good general education, and that this education is secured by the examination which has to be passed in England; but he added, in rare cases, Sub-Assistant Superintendents might be promoted to the Assistant grade. He pointed out that the existing block in promotion amongst the superior grades, coupled with the poor prospects, would render it very difficult to obtain gentlemen from England unless remedial measures were taken; and he explained that the block is due partly to large recruitment during the years 1868-1872, and partly to reductions in the number of superior appointments. Lastly, in regard to locality and house-rent allowances, the former of which is meant to afford compensation for dearness of provisions, Mr. Trower explained that such allowances are only granted in special localities and on certain lines, which are either on the hills or in remote places; that they are not granted to any officer for whom quarters are provided; and that the only Native officers who are debarred from them are the Natives of the particular locality concerned.

Mr. Raggunath Narayan, a Signaller, drew attention to the fact that Natives are debarred from the special locality and house-rent allowances, whereas such allowances are granted at certain places to Europeans and Eurasians.

Mr. Johnson, Telegraph-Master, 4th grade, who was deputed by the Signalling staff of the Poona office to represent the grievances under which subordinate officers of the Telegraph Department are alleged to labour, complained of the frequency of transfers to which the staff is subjected, and which involve great expense, as the travelling allowances granted are wholly insufficient. He contended that subordinates of the Telegraph Department should be placed on the same footing as the military services in the matter of travelling allowance. He also urged that the period of "casual" leave, which was 10 days, but which has been reduced to six days, should be restored to the former limit; and he complained of the inadequacy of the house accommodation allowed to subordinate officers of the Department. He further suggested the establishment of a provident fund, and he complained of the removal of Telegraph-Masters to make room for Post-Masters, who work both the post and the telegraph. He also urged that a certain number of the higher grades should be thrown open to the subordinate establishments, and that the grade of Sub-Assistant Superintendents should be recruited from the "good" as well as from the "superior" grade, the number of appointments being at the same time largely increased. Mr. Johnson further pointed out that the annual signalling examination is unnecessarily severe, and urged that officers of more than 15 years' service should be exempted from the test. He added that the paucity of Natives on the Signalling staff is probably due to their dislike to the hard work of the Department and to the small prospects.

Mr. O'Brien, Telegraph-Master, 4th grade, complained of the small emoluments and slow prospects of advancement in the Signalling Branch of the Department; also of the frequent transfers with consequent pecuniary losses. He urged that Telegraph-Masters and Signallers of fifteen years' service and upwards should be exempted from the annual examination in signalling, and that promotions in the signalling branch should be made by seniority, a certain number of superior appointments being at the same time thrown open to Sub-Assistant Superintendents. He also advocated a revision of the leave rules, the establishment of a provident fund, and certain modifications in the existing rules relating to accommodation and travelling and house allowances.

Mr. Hari Anand Baput, a Signaller in the Local Service, complained that Native Signallers receive neither house-rent nor special locality allowance, both of which are granted to Europeans and Eurasians. He considered that local Signallers should be confined to one place and general Signallers to one Presidency.

Mr. Hullah, Superintendent, 5th grade, who joined the Department in 1869, and who, when he appeared before the Sub-Committee, was engaged in conducting an examination for the admission of candidates for the telegraph class at Bombay, expressed his opinion

that efficiency as well as seniority must be taken into consideration in promoting to the grade of Telegraph-Master. He thought that, speaking generally, a good Native Signaller is as efficient as a European or Eurasian in manipulation, but that it would be an exception to find a Native of the class obtained for service in the Telegraph Department who would be competent to take charge of one of the large offices or to control European Soldier Signallers. He did not think that men could be so well educated in India as in England for the higher grades, inasmuch as there are not in India the same opportunities for practical instruction; but he considered that in exceptional cases, promotion might be allowed from the Sub-Assistant grade to the superior grade, the number of appointments in the former grade being increased with a view to provide a stimulus, which is much required, to Signallers and Telegraph-Masters. He did not think that transfers are made more frequently than the exigencies of the public service demand, but he would be glad to see more liberal allowances granted to compensate for the loss caused by transfers, especially in the case of married men. He urged that the upper grades of the Department have reason to complain, first of the block in promotion, and secondly of the refusal of the Presidency allowances which are granted to officers of the Public Works Department, and which are drawn by officers of the latter Department when attached to the Telegraph Department. He also contended that their being obliged to provide tents required for Government work, at private expense, was opposed to the terms of the covenant entered into with the Secretary of State, and he explained that no tentage allowance is given to officers of the Telegraph Department.

Mr. Towers, Assistant Superintendent, 1st grade, who is also a member of the Society of Telegraph Engineers, and who entered the Department in 1870, referred at some length to the slowness of promotion in the superior grades of the Department and to its effect on probable pension. He considered that the numerical strength of the superior establishment of the Department might be considerably reduced and that much of the work which is now done by Assistant Superintendents appointed in England might be done as efficiently by men appointed in India (probably by promotion from the signalling branch); at the same time he held that a certain proportion of the higher appointments should continue to be recruited in England. He thought that the ordinary sub-divisional work might be made over to upper subordinates instead of being done by officers of the superior establishment. He considered that those Native Signallers of whom he had had experience performed their duties with efficiency, but he observed that the work of the Department is so hard as not to attract educated Natives, and that the qualifications required in a Signaller for the Telegraph Department are higher than those required in a Signaller on a railway. He explained that on the occurrence of vacancies in the local signalling branch, the practice in the case of the Calcutta office is to insert an advertisement in the Government *Telegraph Gazette*, a publication which is taken in by all the larger mercantile firms and by many Government offices. Advertisements are also posted up in conspicuous places. He added that the withholding of Presidency and Local allowances is a source of great discontent amongst the superior officers of the Department, and that the non-supply of tents for Government work is opposed to the terms of the covenant entered into with the Secretary of State, and is especially hard in view of the particular circumstances under which officers of the Department are called upon to work in the field. Lastly, Mr. Towers pointed out that, under the travelling allowance rules, officers of the Department are required on return from furlough to pay their way from the port of debarkation to places to which they are posted; and he submitted that in cases in which an officer's destination is changed after he has received his orders in England, he should be recouped the additional actual expenses which he has to incur in consequence of the change of his destination, or that he should receive travelling allowance for the difference in mileage between his destination and the nearest port and this destination and the port at which he was ordered to report himself.

Mr. Woodward, Assistant Superintendent, 1st grade, who joined the Department in 1878, complained of the block in promotion amongst the superior grades, and of the fact that Presidency allowances are not granted to officers of the Telegraph Department. He also complained of the curtailment of travelling allowances and of the non-supply of tents at the expense of Government. He did not consider that the requisite training for the higher appointments in the Department could be obtained in India, and he urged that the Department could be worked as efficiently as, and more cheaply than, at present by extending the ranges and powers of Assistant Superintendents, by allowing them to have Sub-Assistant Superintendents to work under them and by increasing their office establishments. He also advocated the creation of extra grades of Chief Superintendents similar to Chief Engineers in the Public Works Department. He thought that Natives were capable of managing small sub-divisions but not large ones, because in the case of the latter the subordinate officers are largely composed of Europeans and Eurasians whom a Native would find it difficult to control.

Mr. Thorpe, a Sub-Assistant Superintendent, 1st grade, gave an account of the past reorganization of the Department, with a view to show that it was always intended to enable the subordinate grades to qualify themselves for promotion to the superior appointments. He advocated the recruitment of the higher ranks by open competition amongst Europeans and Natives in India, and saw no necessity for having recourse to England for recruits. He had never been to England, but had not experienced any difficulty in enforcing discipline in a large office such as that at Rangoon, of which he had been in charge.

Mr. Wale, a Telegraph-Master, considered that the existence of the two grades of Assistant Superintendents and Sub-Assistant Superintendents is unnecessary, and advocated the abolition of the former grade. He urged that there is no necessity for the high standard adopted in connection with the annual examination of Signallers, and that these examinations are a hardship on the old employés of the Department. He thought that Signallers of the "average" grade should be eligible for appointment as Telegraph-Masters, subject to their passing a qualifying examination in office routine, &c. After appointment as Telegraph-Masters, he considered the Signallers should not be degraded, unless for misconduct, and with the permission of the Director-General. He advocated vacancies in the grade of Sub-Assistants being filled, as they occur, by means of competition amongst Telegraph-Masters; and he urged that more liberal travelling allowances should be given to officers of the Department when transferred. Lastly, he thought that every opportunity should be afforded to men of the signalling branch to retire from the service without a medical certificate on the completion of 25 years' service, and he considered that if the grade of Assistant Superintendent were absorbed and recruitment from England discontinued, the present staff of Sub-Assistants, 1st grade, might be designated Assistant Superintendents. In the course of his examination he complained of the rule whereby subordinate officers of the Department are forbidden to sell instruments invented by themselves so long as they remain members of the Department; but he admitted that an officer had been allowed to sell an invention which had not been adopted by the Department, and that when the invention was adopted by the Department, the inventor was recommended for a premium.

Mr. Hanrahan, a Telegraph-Master, complained of the slowness of promotion in the Department, and advocated the introduction of a system of consolidated pay throughout all grades, promotion being thrown open to the highest appointments by competition or approved service. He complained of the frequency of transfers and of having been sent on duty across the frontier with military forces without extra remuneration. He thought that relative rank should be given to officers of the Telegraph Department when in the field. He complained that Telegraph officers are debarred from taking privilege leave except during six specified months (April to September), and that the casual leave rules are different from those which are applied in the case of other Departments. He also urged that the travelling allowances granted are wholly inadequate to meet the large expenses of transfers, especially in the case of married men with families, while the allowance for house-rent is not sufficient to meet the actual charge on that account. In regard to the annual examinations, he explained that they involve special hardship in the case of men who have served for several years in the Department. Lastly, he contended that it should not be in the power of two officers of the Department to declare a man's unfitness for service without reference to medical opinion.

Mr. Warden, a Telegraph-Master, reiterated the complaints of the previous witnesses as to slowness of promotion and the rules regulating privilege and casual leave, and expressed an opinion that the entire signalling branch stands in need of reorganization. He pointed out that since the introduction of the combined offices system, the status of Telegraph-Masters has become very precarious. He considered that Native officers are entitled to the house and other allowances granted to European and Eurasian officers of the Department, and he thought that the standard required by the annual examination in signalling is unnecessarily and unduly severe. He saw no reason why the higher grades of the Department should continue to be recruited from England.

Mr. Halje, a retired Signaller, observed that no reason exists why the grades of Linemen and Sub-Inspectors should not be thrown open to Eurasians and Anglo-Indians. He thought that the class of Assistant Superintendents might be replaced by Sub-Assistant Superintendents and Telegraph-Masters who are perfectly qualified to perform the duties of the higher grade. He considered that the introduction of the local scale was wholly unnecessary, and that it had operated hardly in the case of all officers of the Department. He also referred to the very onerous nature of the duties which devolve upon Telegraph-Masters, and he urged that the work is not sufficiently remunerated by the small extra allowance granted.

Mr. Muniswami Aiyar, a Signaller of the Local Service, contended that either the "local" and "general" scales should be amalgamated, or that the rate of pay attached to the "local" service should be enhanced; and that the lucrative appointments in the Madras Presidency should be distributed amongst "local" officers, and should not be almost entirely monopolized by general service men. He urged that the standard of the annual examination in signalling is unnecessarily severe, and that no real necessity exists for the examination in the case of old employés of the Department, upon whom it operates hardly. He reiterated the objections of the previous witnesses to the rules relating to privilege and casual leave, and to the fact that Native Signallers are not allowed house-rent, which is granted to European and Eurasian Signallers. Lastly, he represented that the Presidency Office at Madras is altogether undermanned with the result that the men attached to it are overworked, and he advocated an interval of at least 30 minutes for meals.

Mr. Rigg, Sub-Assistant Superintendent, in a written communication to the Sub-Committee, observed that Natives are perfectly competent to perform some of the minor duties of the Department and make fair Signallers, Telegraph-Masters and Sub-Inspectors. He thought that the grade of Assistant Superintendents should be recruited from that of Sub-Assistant Superintendents, and that there is no necessity to recruit from England for the higher grades when perfectly efficient persons are available in India in the lower grades. He

compared the position of persons serving in the lower grades of the Telegraph Department with that of persons serving in corresponding grades in other Departments, with the object of showing that the prospects of the former are far worse than those of the latter. In the matter of house-rent, he contended that officials of the Telegraph Department are denied the allowances and privileges granted in other Departments of the public service, and he strongly urged that qualified officers belonging to the class of Sub-Assistant Superintendents should be granted promotion to the higher grade of Assistant Superintendents.

Mr. O'Heara, Telegraph-Master, considered that, although it is necessary to recruit the higher grades to a certain extent from England, in order to secure efficient supervision, greater opportunities of promotion should be afforded to deserving officers of the Sub-Assistant Superintendent class. He advocated the amalgamation of that grade with that of Assistant Superintendents, and the promotion to the amalgamated grade of competent Telegraph-Masters. He deprecated the distinction made between the "local" and "general" scales of pay, and he pointed out that the standard required at the annual examinations in signalling has become impracticable and is universally felt to be unfair in the case of old employés of the Department. Lastly, he urged that the leave rules applicable to the subordinate officers of the Department, who are required to perform such hard work and who are denied the holidays granted to officers in other departments, should be framed in a more liberal spirit; and he referred to the inadequacy of the travelling allowances on the occasion of transfers, especially in the case of married men. He also thought that special allowances should be granted to Telegraph officers serving in hill stations.

Mr. Hand, Assistant Superintendent, who joined the Department in 1872, referred to the frequent transfers which he had been required to undergo and which involved great pecuniary loss, and to the slowness of promotion in the superior grades and its effect on probable pension. He complained that Presidency allowances are withheld from officers of the Telegraph Department, and that tents are not supplied to them, in opposition to the terms of their covenants, for public purposes.

Section II.—Note by the Director General.

Signalling Establishment.

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Regulations for admission, pay and promotion.

1. The regulations for admission to the Signalling establishment will be found in Chapter B of the provisional Telegraph Code, a copy of which is forwarded herewith.

Examination of probationers.

2. In paragraphs 6 to 11 are detailed the rules for admission of candidates as unpaid probationers. The test is a qualifying examination in elementary educational subjects—English dictation and composition, geography (Indian, English, and general), arithmetic, and algebra up to simple equations. These examinations are usually held at the large centres, where it has been found convenient to establish training classes, and they are open to all members of the community, without distinction of race, who fulfil the conditions of age and physical fitness. The ages of admission usually vary from 16 to 20. Morse signalling is more easily acquired when learned young and persons who acquired it later in life rarely acquire great proficiency.

Special examinations of probationers.

3. Special examinations of probationers are also held in the Lawrence Asylums of Sanawar and Ootacamund, these boys being subsequently trained for their future profession by an Instructor appointed for the purpose, who attends the institution. A copy of the rules of these special classes is annexed. Probationers are also occasionally examined and trained at places where no regular class exists, and the local Telegraph Master acts as Instructor in such cases.

Period of training of probationers.

4. The period of training of probationers varies according to the abilities of the candidates. In the Lawrence Asylum classes, the period is fixed at a maximum of two years, as the lads follow the ordinary educational course of the institution in addition to their special instruction in Telegraphy, &c. In the ordinary classes the full period allowed is nine months.

Final examination of probationers.

5. In paragraphs 9 and 10 and 21 to 25 of Chapter B of the Code are detailed particulars of the final examination for admission to the paid establishment. The examination is confined to knowledge of instruments (including elementary Electricity and Magnetism), office routine signalling, and dictation. In the Lawrence Asylum classes there are two examinations during the course of training, and the instruction in the subjects of Electricity and Magnetism is somewhat more extended than in the ordinary training classes. The course also includes practical instruction in the elements of telegraph construction and repairs.

Pay and grades of signalling establishment.

6. The pay and grades of the signalling establishment are shown in the following table:—

Pay.

Signalling Establishment.

Years of service.	Local Scale.				General Scale.			
	Indifferent.	Average.	Good.	Superior.	Indifferent.	Average.	Good.	Superior.
	₹	₹	₹	₹	₹	₹	₹	₹
0	20	27	33	40	30	40	50	60
1	22	29	37	44	33	44	55	66
2	24	32	40	48	36	48	60	72
3	26	35	43	52	39	52	65	78
4	28	37	47	56	42	56	70	84
5	30	40	50	60	45	60	75	90
6	35	44	55	66	52	66	82	99
7	38	48	60	72	57	72	90	108
8	41	52	65	78	61	78	97	117
9	44	56	70	84	66	84	105	126
10	47	60	75	90	71	90	112	135
11	51	65	81	98	77	98	122	147
12	55	71	88	106	83	106	132	159
13	59	76	95	114	89	114	142	171
14	63	81	101	122	95	122	152	183
15	67	87	108	130	100	130	162	195

The conditions of first appointment are stated in paragraph 11 of Chapter B of the Code. All Signallers are first appointed in the average grade on the minimum pay of that grade. The indifferent grade is a punishment grade. The good and superior are only attained after admission to the Department in the manner that will be described hereafter.

7. Before the commencement of a probationer's period of training, he is informed whether he will be eventually appointed on the general or local scale.

General and local service.

General service Signallers are liable to transfer to any part of India or Burma; local service men are not moved beyond certain defined limits; roughly, those of their presidency, though the presidential limits have been modified in a few cases to meet special circumstances. Local Signallers are allowed to volunteer for general service, and general service men are permitted to elect for the local scale, subject in each case to the requirements of the service at the time.

8. The pay in each of the four grades rises to a maximum by 15 equal annual increments.

Rules for annual increments of pay.

These increments are granted for approved service and are subject to passing, annually, a test examination in signalling (see Chapter B, paragraphs 13 to 20). The scales of pay and conditions of increment have been fixed to meet the special requirements of the Department. The initial pay is low, as the Signallers usually join as lads. Their efficiency and usefulness are increased by the training and experience they gain by practical work, beginning at first on lightly worked circuits and gradually fitting themselves for employment at the important main-line instruments. The annual test in signalling is essential to prevent deterioration in speed and accuracy.

9. In addition to their emoluments as Signallers, a limited number of the staff draw allowances for their special responsibilities as Telegraph-Masters.

Telegraph-Masters.

These allowances are of four classes—Rs. 80, 60, 40, and 20. They are local, not personal, with the exception that they form part of the emoluments upon which a Telegraph-Master's pension is calculated. The allowances are given for charge of offices or training classes, charge of batches of Signallers on duty in the larger offices, special testing duties, and technical inspection and maintenance of licensed offices. After a Signaller has attained the maximum pay of his grade and has also continuously held for two years a Telegraph Master's charge, he is described as a Telegraph-Master and not as a Signaller, but his employment as a Telegraph-Master, with an allowance, is subject to there being a vacancy in the division in which he is serving. Telegraph-Masters are usually of the good or superior grades, though exceptions are sometimes made, more especially in the small offices, but they are always selected for efficiency and good conduct, seniority being also considered.

10. The normal grade for a Signaller of average attainments and good character is the average.

Promotion to the good and superior grades.

His promotion is limited to the scale for that grade, and length of service gives no claim for promotion to the good or superior grades, which are reserved for men of exceptional intelligence and value coupled with good character. The promotion of Telegraph-Masters and Signallers to the good and superior grades is usually regulated by the passing of a voluntary qualifying examination open to all members of the signalling staff who are up to the full standard of efficiency as Morse operators; but the holding of a general examination throughout the Department of all volunteers is subject to there being sufficient vacancies in the higher grades to warrant the expense and trouble the examination necessarily involves. The nature of the examination and the rules for conducting it are fully detailed in paragraphs 28 to 58 of Chapter B of the Code. It will be seen that the test is not confined to technical and educational subjects, but that conduct and special services are also taken into consideration and marks are allotted for them. Occasional promotions for exceptionally good service are made by the Director-General in addition to those made at a general examination.

11. The number of Signallers, including Telegraph-Masters, employed in the Department, is regulated from time to time acording to traffic requirements, by the Government of India on the report of the Director-General. The Government have further fixed the maximum proportions of men in the various grades as follows:—

Proportions of Signallers in the various grades and measures for filling vacancies.

Superior	10 per cent.
Good	30 „
Average	60 „

The present sanctioned strength is 1,276, and the proportions in the various grades were as follows on the 1st January, 1887:—

Superior	8·95
Good	30·43
Average }	60·62
Indifferent }	

Examinations for promotion were held in 1879, 1881, and 1883 to fill vacancies. When the number of men who qualify for promotion is greater than the number of vacancies, they are placed on a supernumerary list and absorbed as vacancies occur.

Recent special test for promotion to good grade.

12. In 1885 the Government of India sanctioned, on the representation of the Director-General, the special promotion of 50 Signallers to the good grade as a reward of proved efficiency in dealing with Code and Cipher telegrams. These 50 men were in excess of the established proportion, and the condition was that they were to be absorbed by vacancies—a result which has since been attained. These special promotions were determined by a very laborious examination of the actual work, during three months, of the most efficient men in each division, who were specially selected to deal with Code messages. The test was a searching one and the exceptional procedure was necessitated in order to provide for greater accuracy in dealing with Code messages.

Leave and pensions.

13. The signalling establishment consists of men appointed in India. Their leave and pension rules are the same as those for the Uncovenanted Service generally, with three exceptions:—(1) that service towards pension is allowed to count from 18 instead of 22 [see Civil Pension Code, section 67, exception]; (2) that in the case of invalid pensions the medical certificate may be dispensed with under certain special circumstances [see Civil Pension Code, section 107 (*e*)]; and (3) that the allowances of Telegraph-Masters are considered to be emoluments in calculating pension [see Civil Pension Code, definitions, page IX].

Technical and professional attainments required of Signallers and Telegraph-Masters.

14. The Department requires a Signaller to possess, as a preliminary to employment, a fair elementary education, which is tested by the qualifying examination for admission as probationer (see paragraph 2 of this Note). The further requirements are tested by the final examination for admission as a paid employé (see paragraph 5 above). Good spelling, rapid, neat writing, the capacity to receive and send Morse signals by ear at 20 words a minute in open and 12 words in closed circuit, a knowledge of the electrical instruments used, office routine, and traffic rules are the qualifications which every Signaller should possess. Knowledge of instruments involves an elementary acquaintance with the laws of Electricity and Magnetism, and the power of taking simple tests of the efficiency of the instruments and batteries used in the offices. By the hope of promotion to the higher grades, the Signallers are encouraged to improve their knowledge of electricity, Magnetism, and testing and, as a means to attain this end, technical circulars and handbooks describing our methods of work, besides text-books on telegraphy and electricity, are available for reference and private study in every signal office. Members of the signalling staff who show special aptitude in these subjects are employed as Testing Telegraph-Masters at the large stations, where complete testing apparatus is kept up, and the lines are regularly tested; they are also attached, when practicable, to the office of the Electrician, and assist him in cable-testing, experimental investigations, and other similar work. Telegraph-Masters are required to possess all the qualifications of Signallers, and as they are selected from among the latter for efficiency, they usually possess these qualifications in a higher degree. Good business habits, tact in dealing with the public, and the power of controlling their subordinates and maintaining discipline are additional qualifications which the post of Telegraph-Master demands. It may be mentioned here that the Telegraph-Masters of the Department are, as a class, a most efficient and intelligent body and afford good proof of the soundness of the system which has produced them.

Classes of the community who seek employment as Signallers and their relative efficiency.

15. Europeans, Eurasians, and educated Natives all seek for employment in the Department as Signallers. The former classes are largely recruited from the various orphan schools and other educational establishments. Many are the children of old soldiers and other Government pensioners. The Native candidates are not furnished by any special castes, but come generally from the classes who have learned English and seek Government service. They are almost entirely Hindús. As stated above, the signalling establishment is open to all classes and races for either general or local service, but in practice it is found that the Natives are so shackled by family ties that they leave their own province very unwillingly, and that they are only fitted as a class for local service, which they generally choose. In respect to relative efficiency, the Native Signallers, when young and well-acquainted with English and of good constitution, may be considered, from the point of view of a Morse operator, as fairly on a par with the European and East Indian. In cases where the knowledge of English is more superficial, or where the physique is weakly, the Native Signaller is not as efficient or enduring as the other classes, and this is especially the case when employed away from his own district in stations the climate of which does not suit him. With increasing age the Native becomes more and more immobile. Even within his own province he is less ready to move at short notice than the European or Eurasian, and adapts himself less readily than they do to strange surroundings. On emergencies, such as flood, cyclones, &c., when a Signaller or Telegraph-Master has to proceed on the line to restore communication and has to undergo hardship and exposure, the Native Signaller is, as a rule, distinctly less efficient than the European or Eurasian, less active and with less resource. Between the country-born European and Eurasian there is not much to choose as a class. Both have much the same habits and tastes, and when steady and endowed with good health and intelligence they make excellent Signallers. In the unhealthy eastern divisions of the Department, such as Assam, Arakan, and Burma, service is as a rule very unpopular; local Signallers are but scantily procurable, and for these divisions it is necessary to limit the term of service and arrange for a regular course of relief from India proper. This necessity involves many transfers, which would be avoided had we to deal only with healthy districts, each producing its own quota of Signallers. For the educated Native of India who takes service

as a Signaller a transfer of this kind, involving separation from home and trying changes of climate, is so serious as to deter him from choosing general service. A mixed signalling staff, as at present, is therefore the best and the only one adapted to the requirements of the Department.

(A) Gazetted Officers and (B) Upper Subordinates.

(1) Appointments and promotions.
(A) Gazetted officers.

The organization of the Department as regards the superior (as well as the upper subordinate) grades will be found detailed under head (2), which gives the scale of pay attaching to the various grades.

The superior staff is recruited at present by the annual appointment of two trained officers sent out from England (by the Right Hon'ble the Secretary of State), after passing through the prescribed course at the Royal Indian Engineering College at Cooper's Hill. [For particulars of course see under head (3)]

The Government orders* on which the existing organization is based [see (2)] calculate on the need for three or four new officers in alternate years, and admit of the number above two per annum being made up, as occasion may require, by officers trained in India, subject to suitable arrangements being made for their training.

The occasion, however, has never arisen, as the actual number of officers on the superior staff (now 102)† is still in excess of the 94 prescribed as the normal limit [see (2)], which number is, however, to be further reduced to 84.

In giving the above provisional sanction, the Government of India contemplated that Natives of India appointed in this country to the superior establishment of the Telegraph Department should be engaged on salaries at two-thirds of the rates notified in Public Works Department Resolution Nos. 186-89T. E., dated 27th October, 1881, [see (2)].

The Assistant Superintendent's class, the pay of which will be seen to range from Rs. 250 to Rs. 500 per mensem [see (2)], is nominally divided into four grades, as described below ; but as an Assistant Superintendent's pay rises regularly year by year, subject only to the efficient discharge of his duties, by increments of Rs. 20 per mensem from the minimum to the maximum, the class may be looked upon as practically formed of one grade :—

Assistant Superintendent—			
	1st grade	pay	Rs. 400-25-500
	2nd „	„	„ 350-25-375
	3rd „	„	„ 300-25-325
	4th „	„	„ 250-25-275

As stated above, these increments are subject to the condition of approved service, and in considering them each year, with a view to either granting or withholding them, according to the merits of the officer, the Director-General maintains a very close review of the qualifications of his staff and the nature and quality of the work done.

Promotions from the grade of Assistant Superintendent to Superintendent, or from one grade of Superintendent to another, or from Superintendent to Director, whether substantive or officiating, are made and gazetted by the Government of India on the recommendations of the Director-General.

(B) Upper Subordinates.

The scale of pay of upper subordinates will be seen under head (2). They are, as a rule, recruited from the signalling establishment and selected from those members of it who have attained to the superior grade; their selection, however, being made with reference rather to special aptitude, conduct, and physique than to length of service.

Their first appointment to the upper subordinate grade is as 2nd grade Sub-Assistant Superintendent, their first year's service in that grade being probationary.

Their subsequent appointment to the 1st grade depends upon vacancies in that grade; the numbers in the 1st and 2nd grades being adjusted in accordance with Public Works Department letter No. 18-T.E., dated 8th February, 1886, which sanctions the gradual increase of the subordinate establishment, provided the aggregate of both superior and subordinate does not exceed a total of 165, of which the superior is to be reduced to the sanctioned limit of 94.‡

The maximum limit of this sanction is not yet worked up to the present strength of the upper subordinate establishment being—

1st grade	...	...	...	...	...	26
2nd „	...	...	...	...	...	25

Promotions to both these grades, as well as the grant of increments for approved service in them, are decided by the Director-General, who exercises the same periodical scrutiny over the subordinate's services, as explained above in the case of superior officers.

* Public Works Department Resolution Nos. 186-89-T. E., dated 27th October, 1881.
† Including two officers temporarily transferred to other Departments, &c.
‡ To be further reduced to 84.

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(2) Pay, pension, and furlough.

The following table shows the *sanctioned scale* and rates of pay of the superior and upper subordinate grades *:—

(A) GAZETTED OFFICERS.

1	Director-General	Rs. 3,000 (fixed).
1	Deputy Director-General	„ 2,000 („).
2	Directors at 1,225-75-1,600	Rs.
4	Superintendents, 1st grade, at	„ 1,125-75-1,500.
8	„ 2nd „	„ 900-30-1,050.
12	„ 3rd „	„ 800 (fixed).
8	„ 4th „	„ 700 („).
8	„ 5th „	„ 600 („).
50	Assistant Superintendents	„ 250-25-500
94†		

(B) UPPER SUBORDINATES.

‡ { Sub-Assistant Superintendents, 1st grade, Rs. 275-15-350.
‡ { Sub-Assistant Superintendents, 2nd grade, Rs. 250-5-275.

The Government of India has further, as a special case, sanctioned in Public Works Department Resolution No. 17-T.E., dated 8th February, 1886, personal allowances to certain officers of the superior establishment (whose promotion, through no fault of their own, has been unduly retarded by abnormal circumstances), raising their pay as follows :—

After 15 years' service to Rs. 600 per mensem.
After 20 years' service to Rs. 700 per mensem.

Twenty-one officers are at present benefiting by this sanction, all of whom are drawing the lower rate only.

Pension.

(Gazetted officers and upper subordinates.)

The rules in the Civil Pension Code for uncovenanted officers apply both to superior officers and upper subordinates; but the former are admitted to certain privileges (under Schedule B), if specially trained in Europe under regulations made by the Secretary of State, or if among the Morse Assistants specially named in that schedule.

They are also eligible for certain enhanced pensions under special conditions, as detailed in Government of India Resolutions, Financial Department, Nos. 377 and 1709 of 23rd January, 1885, and 1st July, 1885, respectively, printed copies of which are annexed hereto (as an appendix).

Leave.—Leave is regulated entirely by the standing orders of the Civil Leave Code.

(3) Technical requirements and professional attainments.

(A) Gazetted officers.

The two passed students of Cooper's Hill College (candidates for admission to which must be between the ages of 17 and 21 on 1st July of the year of admission) appointed each year to the Telegraph Department [see (1)] are required to be British subjects, of sound constitution, of good moral character, and free from any serious physical defects which would render them unfit for employment in the Department.

They are chosen in their order of standing at the final examination after a two-years' course at the College.

The first-year's course comprises instruction in—

Descriptive Engineering.
Geometrical Drawing.
Surveying.
Free-hand Drawing.
Chemistry.
Chemical Laboratory.
Physics.
Mathematics (plain Analytical Geometry, Elements of the Calculus, Statics, Kinematics, and the elements of Dynamics).
Geology.
French or German.§

The Telegraph students are not nominated from among the Engineer students until the end of the first year.

Their second year's course of instruction includes :—

Applied Mechanics.
Chemistry.
Chemical Laboratory.
Mathematics.
Mathematical Physics.
Telegraphy.
Telegraph construction.
Signalling.
Accounts.

* Government of India Resolution, Public Works Department, Nos. 186-89-T.E., dated 27th October, 1881.
Public Works Department No. 114-T.E., dated 14th July, 1882.
Public Works Department Resolution No. 17-T.E., dated 8th February, 1886.
Public Works Department No. 18-T.E., dated 8th February, 1886.

† To be reduced to 84.

‡ The total number in both grades to be the difference between the actual number in the superior grades (A) and 165 and to be equally divided between the two grades, the odd man, if any, being in the 1st grade (Public Works Department No. 66-T.E., dated 1st June, 1886).

§ Alternative with Free-hand Drawing.

On arrival in India the newly-appointed Assistant Superintendents are, as a rule, posted to the Telegraph Workshops at Calcutta for a short period, with the object of their gaining a practical familiarity with all the principal instruments and apparatus used in the Department, and of which they have to submit accurate drawings.

This short course is followed, when practicable, by a few months' service in one of the large telegraph offices under the charge of a superior officer.

Their efficiency in signalling and receiving with departmental instruments is also tested and the grant of their first-year's increment is made, as a rule, conditional on their passing a satisfactory examination in this respect.

With the knowledge brought out and the preliminary experience gained in the workshops, and subsequently in a large telegraph office, the Assistant Superintendent is able to enter upon the executive duties of his appointment, either on works of telegraph construction or in charge of a sub-division of one of the 17 divisions of the Department, each of which is administered by a senior Superintendent of rank not below that of the 3rd grade, under whom or what may be termed his *executive staff*, consisting of 4th and 5th grade Superintendents, Assistant Superintendents, or perhaps Sub-Assistant Superintendents, each of whom is in charge of or attached to a sub-division or work of construction or important office.

The Superintendents of the 1st three grades comprise what may be termed the supervising staff, 17 of whom hold divisional charge and the rest positions of equal importance, amongst which are those of Chief Superintendent, Check Officer, Electrician, Chief Superintendent of Stores, Chief Superintendent of Workshops, and Personal Assistant to Director-General—these all having passed through the stage of executives in their earlier service.

The duties of these officers are somewhat various, according as they may for the time be employed in engineering works, or matters purely electrical or scientific, or in "traffic" (the commercial branch of the Department), or manufacture, or in appointments or responsible charge involving a general management and superintendence of all these duties combined, where the quality of work has to be scrutinized, expenditure controlled, estimates and other calculations checked, and general progress and improvement designed or encouraged.

It is obvious, therefore, that the professional attainments acquired in the College education not only come into practical utility, but become developed by the system to which they are applied; and beyond this, the rapid changes and improvements continually going on in the electrical and telegraphic world call for attentive research, no less than for practical skill, on the part both of executive and supervising officers.

As regards the engineering part of the duties, progress and extension have demanded scientific accuracy in the details of telegraph construction; moreover, circumstances often render physical qualifications no less importance than intellectual ablility, a combination of the two faculties being indispensable.

The administration of the Department is centralized in the four officers constituting the "Direction."

(B) Upper Subordinates.

Of late, much has been done to bring out the capabilities of the upper subordinate staff in view to utilizing their services in what has been described above as the "Executive" branch of the Department.

As explained under (1), they are selected members of the signalling establishment, and have, therefore, passed through the curriculum prescribed for members of that establishment (as described in section I.), with credit; and there is no doubt that their experience gained in the signalling branch often stands them in good stead.

On giving indication of fitness for line work, their qualifications in that respect are tested by attaching them to a work of construction.

The most reliable and intelligent members of the upper subordinate staff are chosen for sub-divisional charge, and the attainments required of them are consequently similar in nature to those of Assistant Superintendents as described above, though less in degree.

Men of this class are not quite so mobile as young officers from England, nor are their ideas of discipline so correct, while, on the other hand, their mode of enforcing it may be less facile; but their introduction into the executive branch of the service in charge of minor sub-divisions, &c., has nevertheless proved successful on the whole.

There have been cases in which they have disappointed expectations, but, on the other hand, there are cases in which they have done credit to the appointments they hold.

It may be interesting and not irrelevant to note here how the 51 upper subordinates at present in the service are employed. These include three Honorary Assistant Superintendents :—

In sub-divisional charge	14
In charge of telegraph offices	9
„ „ store depôts	2
„ „ training class	1
Attached to Presidency telegraph office	1
„ „ sub-divisions	5
„ „ administrative offices	6
On construction works	11
On leave	2
Total	51

Of the 949 general service signallers, not one can be considered as holding an appointment of less than Rs. 100 a month.

An average grade Signaller enters the service as a boy, usually about 15 or 16 years of age, on a salary of Rs. 40. In 12 years he reaches by regular annual increments a salary of Rs. 106, and in 15 years a salary of Rs. 130.

A good grade Signaller reaches the pay of Rs. 105 in nine years from date of appointment to the Department and reaches Rs. 162 in fifteen years' service in all. Similarly a superior grade Signaller reaches a salary of Rs. 108 in seven years from first appointment to the Department and Rs. 195 in fifteen years.

Signallers are all appointed on first joining in the average grade. They are afterwards promoted to the good and superior grades for efficiency, as tested by voluntary examination, according as vacancies in those grades occur.

As regards the Local Service Signallers the rules for appointment and promotion are the same as for the general service Signallers, but the scales of pay in each grade are lower.

An average grade Local Signaller commences at Rs. 27 and reaches a maximum of Rs. 87 in fifteen years. Should he qualify for the good grade during that period, or afterwards at any time in his service, his pay would rise to a maximum of Rs. 108.

In the case of the Superior grade, his pay would rise to a maximum of Rs. 130 ; the maximum in any case not being attainable until fifteen years' service had been completed from date of first appointment to the Department.

Local Service Signallers of the superior and good grades may therefore be considered to hold appointments of Rs. 100 and upwards.

Local Service Signallers of the average grade may be classed as holding appointments of less than Rs. 100, but if they should attain to the superior or good grade they would at once be classed in the first category, as being on a scale which would, in ordinary course lead them to a pay of above Rs. 100.

Of the 337 Local Service Signallers 55 are in the good and superior grades. The remaining 282 are at present not on a scale that will enable them to reach without promotion Rs. 100; but as the two higher grades are open to them without distinction of race, it is not thought necessary to exclude them from the statement in which all the rest of the signalling establishment was shown. An additional reason for including them with the signalling establishment generally is that local Signallers are being constantly transferred to the general scale, which is open to them should they volunteer for general service and be required and fit for the same.

Any further information that may be required will be afforded, including the classification of the Signallers according to race and grade to any extent that may be needed, but this information will occupy some time.

As regards the *class* of candidates appointed from Cooper's Hill, all that is required is that they should be "British subjects" [see (3)].

(4) Classes seeking employment.
(A) Gazetted officers.

As a matter of fact all thus appointed have been Europeans, with the exception of one, who is a Eurasian. This gentleman has suffered somewhat from inferior physique and is now on medical leave. It may be mentioned, however, that another Eurasian gentleman, appointed before the Cooper's Hill regimé was brought into force, has proved a first-rate executive officer.

(B) Upper Subordinates.

The existing staff of upper subordinates is made up of—

25 Europeans,
25 Eurasians,
1 Native,

the last-named appointment having been made in view of the long and meritorious service of the incumbent as a Telegraph-Master. His duties, however, have not been changed.

As regards others, it is impossible to say that one class has rendered more efficient service than the other, all the members being, as remarked before, picked men and recruited for the most part from the signalling establishment, the enlistment of which is effected as explained in section I.

The subjoined table shows the *existing* organization and constitution of the superior establishment of the Department—*i.e.*, the gazetted officers :—

(5) Existing organization.
(A) Gazetted officers.

Existing organization and constitution of the Telegraph Department.

1	2	3	4						
Department.	Total number of gazetted appointments and of appointments not being purely clerical of salaries of Rs. 100 and upwards.	Distribution of the gazetted appointments and of other appointments mentioned in column 2, amongst classes and grades with rate of pay attached to each.	Number of appointments in each class now held by—						
			1 Europeans not domiciled in India.	2 Europeans domiciled in India.	3 Eurasians.	*Natives of India.*			
						a. Hindús.	*b.* Muhammadans.	*c.* Others.	*d.* Total.
		SUPERIOR ESTABLISHMENT.							
Telegraph.	[1,445	Director-General ... 3,000 Rs.	1	...	...	...	...	...	...
		Deputy Director-General ... 2,000	1	...	...	...	...	...	...
		2 Directors @ ... 1,225-1,600	2	...	...	...	...	...	...
		4 1st Grade Superintendents @ ... 1,125-1,500	4	...	...	...	...	...	...
		8 2nd Grade Superintendents @ ... 900-1,050	8	...	...	...	...	...	...
		12 3rd Grade Superintendents @ ... 800	12	...	...	...	...	...	...
		8 4th Grade Superintendents @ ... 700	8	...	...	...	...	...	...
		8 5th Grade Superintendents @ ... 600	7	...	/	...	...	...	...
		55* Assistant Superintendents @ ... 250-500	54	...	/	...	...	...	...
		UPPER SUBORDINATE ESEABLISHMENT							
		26 1st Grade Sub-Assistant Superintendent @ ... 275-350 Rs.	...	13	13	...	...	...	...
		30 2nd Grade Sub-Assistant Superintendents @ ... 250-275	...	13	15	2	...	...	2
		4 1st Grade Inspectors @ ... 120-150	1	2	2	1	...	...	1
		SIGNALLING ESTABLISHMENT.							
		949 General Service Telegraph Masters and Signallers @ from Rs. 40 rising to Rs. 195.	†...	147	889	209	7	34	250
		337 Local Service Telegraph Masters and Signallers @ from Rs. 27 rising to Rs. 130.							

* The Assistant Superintendents form practically one class and grade, as they rise steadily by annual increments of Rs. 25 from the minimum to the maximum pay of the class, independent of grades.
† Please see attached note regarding the signalling establishment.

SIMLA ;
The *Nov.*, 1887.

A. J. LEPPOC CAPPEL,
Dr.-Genl. of Telegraphs in India.

LOWER SUBORDINATE ESTABLISHMENT.

(1) Lower subordinate establishment. Classes of appointments. Regulations as to admission and promotion.

There are two classes of appointments in the lower subordinate establishment :—

(A) Linemen.
(B) Sub-inspectors.

Linemen's appointments are given to coolies employed on telegraph works who, while thus employed, display intelligence and a readiness to acquire the needful technical knowledge. As the duties of a Lineman frequently entail severe physical exertion and exposure at all times of the year, only exceptionally robust and healthy men are entertained. Preference is given to men who can read and write, as the Linemen form the source whence the Sub-Inspectors are obtained. A coolie is not entertained as a Lineman until he has shown that he has acquired a certain amount of technical knowledge. A Lineman's promotion to Sub-inspector is dependent on his conduct and general intelligence, ability to manage working parties, to read and write in the vernacular, and technical knowledge. For promotion from the 3rd to the 2nd grade of Sub-inspectors a man must be able to carry out all the minor works of construction and keep accounts and travelling journals in the vernacular. The number of appointments in the 1st grade is very limited, and promotion to that grade is given only to men of exceptional usefulness and acquirements, including a knowledge of English.

(2) Pay, pension, and furlough.

The pay of Linemen varies from Rs. 8 to Rs. 20 per mensem, the scale fixed for each division being regulated by the labour rate prevailing therein.

There are three grades of Sub-inspectors, as follows:—

1st grade, Rs. 50 rising to Rs. 80 by annual increments of Rs. 5.
2nd grade, Rs 25 rising to Rs 40 by annual increments of 3.
3rd grade on a fixed pay of Rs. 25.

The leave and pension of both Linemen and Sub-inspectors are regulated by the Civil Leave and Pension Codes,

(3) Technical and professional requirements.

A Lineman is required to be able to make joints in wire, bind wire to insulators, fit insulators and brackets, and supervise the fitting of posts. He must also be able to recognise and detect all line faults which would interrupt or hinder communication. Sub-inspectors should be able to lay out and construct temporary lines and carry out all the details connected with the construction of permanent lines which have already been marked out.

(4) The classes of the community who seek employment in the lower subordinate establishment.

As shown above, the lower subordinate establishment is recruited from the labouring class, and, from the nature of the work, men of this class are best suited for it. That this is generally recognised appears from the fact that applications for admission from any other class of the community are very rare. The technical education is provided by the Department—for Linemen while working as coolies and for Sub-inspectors while serving as Linemen. Owing to the large field from which the Linemen are selected, there has been no difficulty felt in obtaining efficient men; and the number of men qualified for promotion from Linemen to Sub-inspector and in the various grades of Sub-inspector is, as a rule, sufficient to meet the requirements of the Department.

(APPENDIX TO SECTION II.)

No. 377, dated 23rd January, 1885.

Resolution by the Government of India, Department of Finance and Commerce.

(Pensions and Gratuities.)

READ—

Resolution by the Government of India, in the Department of Finance and Commerce, No. 449, dated 18th April 1884.

READ also—

Financial Despatch to Secretary of State, No. 236, dated 25th July, 1884.
Financial Despatch from Secretary of State, No. 362, dated 13th November, 1884.

RESOLUTION.—With the sanction of the Secretary of State, the following improved scale of ordinary pensions has been adopted for those superior officers of the Telegraph Department who are included in the three under-mentioned classes:—

I.—Officers especially trained, who entered the Department under covenant with the Honorable Court of Directors.

II.—Officers under covenant with the Secretary of State.

III.—Officers appointed from Cooper's Hill.

No. of years' service.	Sixtieth parts of average emoluments.	Subject to a maximum of— Rs.	
10	20	1,000	
11	21	1,400	
12	22	1,800	
13	23	2,200	On medical certificate.
14	24	2,600	
15	25		
16	26		
17	27	3,000	
18	28		
19	29		
20 to 24	30	4,000	Without medical certificate.
25 and upwards		5,000	

2. All officers now in the Department will, at the time of retirment, be allowed the option between the above scale and the pensions allowable under present rules. The new scale of pensions expressed in rupees will be convertible into sterling at the rate of exchange fixed for each year.

3. As regards all other officers who do not come under the three classes above enumerated, the Government of India will be prepared to consider favourably, from time to time, the cases of those who my attain the rank of Directors in the Department.

4. The following special additional pensions are also authorized, as rewards of approved service, for those officers who hold the high and responsible positions of Director-General, Deputy

Director-General, and Directors of Construction and Traffic after they have served in their respective ranks for a period of three years:—

Extra pension over and above that allowable under paragraph 1.

Director-General	} Rs. 2,000 per annum.
Deputy Director-General	
Director of Construction	} „ 1,000 „
Director of Traffic	

5. These rules have effect from the 1st May, 1883.

ORDER.—Ordered that this Resolution be forwarded to the Public Works Department for information and guidance and notified in Part I of the *Gazette of India.*

No. 1709, dated 1st July, 1885.

Resolution by the Government of India, Department of Finance and Commerce.
(Pensions and Gratuities, General Rules and General Matters.)

READ again—

Resolution by the Government of India, in the Department of Finance and Commerce, No. 377, dated 23rd January 1885.

READ also—

Financial Despatch to Secretary of State, No. 92, dated 24th March, 1885.
Financial Despatch from Secretary of State, No. 124, dated 7th May, 1885.

RESOLUTION.—With the sanction of the Secretary of State, officers of the Telegraph Department who attain the rank of Superintendent, 1st grade, and serve in that rank for a period of three years, are hereby declared eligible for the special additional pension of Rs. 1,000 per annum admissible to the Directors of Construction and Traffic under paragraph 4 of the Resolution above quoted.

2. The officers whose cases the Government of India was said to be prepared to consider favourably in paragraph 3 of Resolution No. 377, dated 23rd January, 1885, will now, under orders of the Secretary of State, be those who may attain to the rank of Superintendent, 1st grade.

3. These orders have effect from 1st May, 1883.

ORDER.—Ordered that this Resolution be forwarded to the Public Works Department for information and guidance and notified in Part I of the *Gazette of India.*

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

Section III.—Sittings at Calcutta.

WITNESS No. I.—*24th March*, 1887.

Examination of SAMUEL STEELE, Esq., Signaller in the Telegraph Department.

The *President*.

When did you enter the Department?—I entered the Telegraph Department as a probationer on Rs. 20 per mensem in the year 1865, and after two months was appointed a Signaller on Rs. 40 per mensem. I wish to say that there are three grades of Signallers in the Department—"average," "good" and "superior;" there is another grade intended as a punishment grade—the "indifferent." If a Signaller is guilty of misconduct, he is reduced to the indifferent grade for a period not exceeding three months. In that grade he receives only three-fourths of his salary, and if he does not improve in the three months he is dismissed. The salary of the average grade is Rs. 40, the good Rs. 50, and the superior Rs. 60. In addition, men in the average grade obtain an increase annually of Rs. 4 per mensem, in the second grade an increase not exceeding Rs. 10 per mensem, and in the third grade an increase not exceeding Rs. 15 per mensem. Under the existing rules Signallers are entitled to present themselves for a voluntary examination, which is partly educational and partly technical, and is also a test of proficiency of manipulation. On passing this examination promotion was obtainable from a lower to a higher grade according to the number of marks obtained. No examination has been held for three years.

In the Central Telegraph Office, Calcutta, the work is so onerous that Signallers have no leisure for study. I am employed as a Signaller of the 2nd grade in that office. The Government has now instituted telegraph classes at the Lawrence Asylum, Lovedale, Ootacamund; at the Free School, Calcutta; and in all the first class offices, such as Agra, Jubbulpore, Bombay and Madras. I should probably be at a disadvantage as competing after 22 years' service with boys fresh from school, so far as the educational examination is concerned; and although I have kept up my technical studies, other men in the Department have not and would probably be superior to the trained youths only in manipulation. Promotions have in some few instances been made, or increases of pay and bonuses granted, independently of the rules; and in most of the cases apparently these advantages have been obtained owing to the accident of employment in a particular office. I complain that it is hard on the men who have been long in the service that they should be compelled to compete with the trained youths; and there is a feeling that the authorities prefer to employ youths in preference to men who have been long in the Department, because they can be procured for less salaries.

If I were promoted to the 1st grade to-morrow, it would entail an expense of Rs. 32 per mensem; whereas if a man of ten years' service were promoted, he would only receive Rs. 16 in addition to his present salary.

Promotion from the grade of Signaller to the grade of Telegraph-Master is not governed by any rules, nor apparently is promotion to the yet higher grade of Sub-Assistant.

The *President*—contd.

'The Assistant Superintendents are ordinarily appointed from England, and principally are students of the Royal Engineering College at Cooper's Hill. The Telegraph-Masters have only charge of offices. The Sub-Assistants have charge of offices, sometimes independently and sometimes under Assistant Superintendents. Assistant Superintendents have sometimes charge of the principal offices, such as Bombay, Madras, Karachi; but ordinarily they have charge of lines comprised in a sub-division and the supervision of offices on those lines. The sub-divisions are under the charge of a Chief Superintendent. The Sub-Assistants are men recruited in the country, and in some cases of late years have been promoted to the charge of sub-divisions. The higher grade is, however, closed to them. They do, indeed, get more pay than an Assistant Superintendent on first appointment.

I should mention that there are two scales of pay—one for the General subordinate service, the other for the Local subordinate service. The Asiatic members of the subordinate service are generally Local service men, and receive only two-thirds of the pay of the General service men.

They do less work, as they are employed only in the day time, while the General service men work both day and night. The General service men are liable to transfer, and these transfers are apparently at times made without any system and without much consideration for the officers transferred.

I joined the service at 14 years of age in Madras. I was sent to Rangoon and there instructed. From Rangoon I was sent to Henzada and thence to Padoung. I remained at Arrakan for three years at most unhealthy stations; and I was then transferred to Bengal, where I remained for two years and then went to Bangalore for four years. After six months at Bellary I was sent to Badulla in Ceylon and remained three years. I was then brought down to Colombo, and after a few months' more service in Ceylon I was transferred to Kohima in the Naga Hills.

I have not had any instruction in surveying or in mechanical work. The mechanical work is so simple that I could easily acquire sufficient knowledge of it to take charge of a line.

I was formerly a Telegraph-Master, but was reduced for a breach of rules three years ago. I am now drawing Rs. 162 per mensem. The Signallers, Telegraph-Masters and Sub-Assistants claim that promotion to the upper grades should be open to them, and are willing to undergo any technical examination as to their qualifications for such promotion; and we ask that examinations should be held regularly to afford us the opportunity of promotion.

Sittings at Lahore.

WITNESS No. II.—*26th April*, 1887.

Examination of W. K. D'O. BIGNELL, Esq., Chief Superintendent of Telegraphs, Panjáb Division.

The *President.*

When did you enter the Department?—I was appointed in England at Gresham House in 1856 on Rs. 200. I am now drawing Rs. 1,500, the highest pay of the 1st grade of Superintendents.

How is the Department now recruited in England?—From Cooper's Hill, at the rate of two appointments a year as vacancies arise.

The Hon'ble Mr. *Quinton.*

Is there a block in the recruitment at present?—Yes; owing to the Department having been too largely recruited in 1872; that was before we began recruiting from Cooper's Hill. In those days candidates, the sons of gentlemen, underwent a competitive examination, and the successful competitors were sent to Southampton for training. In 1872 too many men were sent out, resulting in a block, and for the last two years we have had no recruitment.

The *President.*

Has not the time arrived when we might educate Telegraph Officers in India?—Not for the superior grades. The education which men undergo who enter the Telegraph Department in this country is not sufficient to qualify them for the superintendence of divisions.

Have you taken into the Department any men from Rurki?—No.

Is it your opinion that you could not obtain men from Rurki who would be as efficient as the men you get from Cooper's Hill?—I have no experience of Rurki and cannot therefore say.

You require the men you recruit in this country to enter the subordinate establishment?—Yes; as Signallers. Those who are brought out from Cooper's Hill enter as Assistant Superintendents on Rs. 250 a month. One or two Signallers have been promoted to be Honorary Assistant Superintendents. Now-a-days Signallers may be promoted to be Sub-Assistant Superintendents. The duties of Honorary and Sub-Assistant Superintendents are sometimes identical with those of Assistant Superintendents in charge of sub-divisions.

Is not a portion of the subordinate staff employed on construction?—It all depends. They are employed in their turn on both construction and office work.

Is it the case that newly-appointed men from Cooper's Hill learn their duties under men

The President—contd.

who were enlisted in this country?—No. As a rule they are sent out on construction duty under some senior hand, who is generally either a Southampton man or a senior Cooper's Hill man.

Are there any highly qualified electricians in this country?—Some of our Signallers are very well qualified electricians indeed, having been taught, of course, by the senior men in the Department. I refer to men born in the country.

Is the only objection to their being appointed to the charge of divisions and sub-divisions their want of education as a class?—Partly so and partly their want of knowledge of the world.

If you enlisted a better class of men in India, those defects, perhaps, would not exist?—Yes.

There are some very able electricians in the service of the various railway companies in this country; are there not?—Yes.

There are one or two gentlemen in your Department and in the Railway Department who have earned considerable reputation as electricians?—Yes.

And therefore there would be no difficulty in providing the necessary technical education in India for service in the Department?—No; we have men in Calcutta now who are doing very good work indeed under the guidance of the electricians I referred to.

I believe some of the officers of the Department have been employed with the troops acting beyond the frontier in Afghanistan and Burma?—Yes; and in Bhutan.

Do you consider it necessary that the officers in charge of field telegraphs should be Europeans?—I certainly think so. They have to do very hazardous things at times, and Natives are not to be trusted under such circumstances.

You consider it hardly likely that you would find Natives with sufficient energy and coolness to perform such duties?—Yes; for the transmission of orders in military signalling extreme accuracy is required. We had none but Europeans and domiciled Europeans and Eurasians at the front. All the superior officers were men who had been educated in England.

Do you know if there is any ground for the complaint that the promotion of Signallers is not carried out uniformly?—I think not. The Superintendent of each division annually recom-

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The *President*—contd.

mends such of the Signallers as he thinks fit for promotion to the Sub-Assistant grade, and these men are brought to the notice of the Director-General. It is the duty of the Superintendent to recommend the deserving men in his division.

Have you anything to say with regard to the pay and prospects of the Department?—No; except that I should like the pension to be paid at the rate of 2*s* to the rupee.

Is it absolutely necessary to bring out two trained men a year from England?—I certainly think it is for the future good of the Department.

Have you known any of the young men who were educated at Mussoorie and other hill schools?—Yes; and, as a rule, I think you find that a Mussoorie boy, when he grows up, shows a want of tact and knowledge of the world. He is not of the same class as the boy who has been educated at a public school at home.

The *President*—contd.

You have no objection to the employment in the superior grades of the Department of men who, though born in this country, have received an English education?—I think not.

But you consider that the education given in this country is not such as to secure men of the character you require for those grades?—Yes.

Have you had experience of the officers trained at Cooper's Hill?—Yes.

Are they efficient as regards technical education?—Very efficient indeed.

Are they fit to be set to work as soon as they arrive in the country?—Of course they are at first a little awkward until they have learned something of the language.

If men are to be recruited from England, do you consider Cooper's Hill a good school to procure them from?—Yes.

WITNESS No. III.—*26th April*, 1887.

J. W. B. Duthy, Esq.

Examination of J. W. B. DUTHY, ESQ., Telegraph Superintendent, 5th grade.

The *President*.

When did you join the Department?—In 1869. I was appointed by the Secretary of State under a system of limited competition in England. I was posted first to Calcutta as Assistant Superintendent, 4th grade, and rose to be Superintendent in 1885.

I believe you have received war medals for service beyond the frontier?—I have received two. I was with the troops in the Lushai and Afghan Campaigns. On both occasions I was employed as Assistant Superintendent. I am now Superintendent, 5th grade.

Have you any observations to make as regards the constitution and conditions of service in the Department?—Yes; there is a most serious block in the promotion of officers in the Telegraph Department. This is due to the large number of men appointed under the limited competition system between the years 1868 and 1872, and to the fact that, before the arrival of the men thus appointed in England, the appointments offered had been filled up, so that the majority on arrival were supernumeraries. This system of appointment came to an end in 1872, and the number of men appointed was then much in excess of the sanctioned strength of the Department, and after 1878 appointments were made at the rate of two or three a year from Cooper's Hill. The Cooper's Hill men appear to be much the same class as those who formerly came out, and they suffer in the same way from the block in promotion, and their position and prospects compared to those of men who came out with them to other branches of the Public Works Department are very bad indeed. As an instance of the slow rate of promotion in the Department I will mention the case of the last officer engaged under the limited competition system in 1872: he is now an Assistant Superintendent on a salary of Rs. 500 after more than 15 years' service, and at the present rate of promotion he will remain in the same position till 1895, when he will, after serving for 23 years, be promoted to the rank of 5th grade Superintendent on a salary of Rs. 600 at the age of 45.

The *President*—contd.

There are several other hardships of which the officers of the Department complain:—(*a*) They are not given the allowances, which all other officers of the Public Works Department receive in presidency towns, though the power to grant such allowances was vested in the Director-General by letter No. 1005-E.G. of 15th July, 1876, from the Government of India, Public Works Department. (*b*) When out in camp they have to supply themselves with tents at their own expense, though they draw only the same travelling allowance as other civil officers who are provided with tents at Government expense, and by the terms of their covenant with the Secretary of State it was agreed that they were to be provided with all necessary articles required by them for the performance of their public duties. The liberality of the proposals for the supply of tents to Government officers made by Sir R. Thompson in his evidence before the Salaries Commission is in striking contrast with the treatment received by the officers of this Department. (*c*) The maximum amount of their pensions after 20 years' service is regulated by the salary which they receive during the last five years of service, and the pay of officers who entered the service between 1870 and 1872 is so low that, if they wish to retire after 20 years' service, they will not be allowed the maximum amount of pension: so that, after serving on low pay for many years, their misfortune is made a reason for the reduction in the amount of their

The *President*—contd.

pensions. (*d*) Their pensions are not paid in sterling in England, though in many of their covenants with the Secretary of State it was agreed that for all purposes of the bond as regards payments of furlough pay and pension, the pound sterling should be considered equal to and calculated at the rate of ten rupees. (*e*) The officers are very frequently transferred and to very great distances, which involves most serious expenditure, as the travelling allowances are inadequate to cover the losses incurred, especially in the case of a married man. As an instance of this I may mention that during the first ten years of my service I was transferred 16 times.

Memorials, collective and from individual officers, have frequently been sent to the Government of India and to the Secretary of State, and a partial re-organization was carried out in 1880, but this has been found to be totally inadequate. Since that time the Governor-General in Council, after reviewing the Administration Report of the Department for 1884-85, has expressed his regret that he was not then able to make any announcement as to the measures which were shortly to be carried out to satisfy the just complaint of want of promotion which had been made by officers of this Department, but that it was hoped announcements on the subject would shortly be made.

Considerable savings might be effected in the Department by such a scheme as would provide for the retirement of senior officers, all of whose places need not be replaced at the bottom of the list, as there are now more officers than necessary. The Department has a most useful body of men in the upper subordinate grade called Sub-Assistant Superintendents, who could undertake part of the executive work of the Department, thus replacing Assistant Superintendents. The Sub-Assistant Superintendents are men who entered the Department as Signallers and by merit have raised themselves to their present position. They are mostly thoroughly well-trained men as regards technical acquirements before they enter their grade, and after a few years under an Assistant Superintendent on construction work and in executive charge of small sub-divisions they are fully competent to undertake small executive charges independently. By employing these men as proposed, and pensioning off the higher officers of the Department, a saving might be effected.

The President—contd.

In your judgment is it necessary to continue to recruit the superior appointments in the Department in England?—Yes; to a limited extent.

Assuming that the casualties in the Department, when its strength is normal, are five a year, how many of these appointments would you recruit from England?—Three.

Have you met any of the Engineers educated at Rurki?—Yes; a good many of them.

And judging from them, do you consider that we might not obtain men from Rurki who would be efficient for service in the superior grades?—Certainly; if the college afforded the necessary technical education, which at present it does not do. At present there is no branch of telegraphic engineering at Rurki.

Are you aware whether the Signallers in your Department have any reason to complain of injustice having been done to them in the matter of promotion?—On the contrary, I should say that, as a rule, Signallers were very fairly treated. I have no reason for believing that any unfairness has been shown to them.

Witness No. IV.—*26th April*, 1887.

Examination of E. H. Murray, Esq., Sub-Assistant Superintendent, 2nd grade.

E. H. Murray, Esq.

The *President*.

How did you enter the department?—I was educated in India, but at no school; I am a self-taught man, a European domiciled in India and born in Bengal. I entered the Department in 1863 at the age of eleven as a Signaller on Rs. 25. It took me two and a half months to learn my duties; but in those days the standard of a Signaller's acquirements was very much lower than it is now. Then 12 words a minute were considered sufficient dexterity to acquire; now they exact 20. The standard of efficiency has been very much raised—indeed, so much so that very few men can attain to it. I am now a 2nd grade Sub-Assistant Superintendent on Rs. 250. When I was promoted from a 1st grade Telegraph-Mastership to my present grade, I was drawing Rs. 275. A portion of this Rs. 275 was, however, office allowance, which would not be paid to me if I went on privilege leave—that is, it is legally an allowance, but it counts towards pension. I am now 35 years of age, and I was promoted to my present post a year ago. My prospect of promotion to a higher grade is very remote, if not altogether hopeless, under present circumstances—that is to say, there are about 16 men above me in the 2nd grade. I have now been 24 years in the Service. It is quite possible that the 1st grade of Telegraph-Masters will be abolished, and I accepted my promotion because I was always under the apprehension that a Sub-Assistant Superintendent would be put in charge of the Lahore office. In the summer months I was in fact superseded.

The *President*—contd.

What work have you been engaged upon?—I have just constructed a portion of the line from Lahore to Multan, and besides that I con-

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The *President*—contd.

structed a portion of the Sind-Saugor line under an Asistant Superintendent. The last constructions duty the superintendence of which I had, was an independent charge; my connection with the work has not yet ceased, although the line is completed. I may mention also that I have been in charge of a large sub-divison—that of Lahore—since I became Sub-Assistant Superintendent.

Have you worked under any of the officers from Cooper's Hill?—Yes; but I have had so little to do with them that I could not express an opinion as to their qualifications.

Were any complaints made against you during the time you were in charge of the Lahore Sub-division?—Not to my knowledge.

Have you anything to urge touching the constitution of the Department or the conditions of service in it?—Yes; I think the Sub-Assistants' grade should be put on the same footing as the Sub-Engineers' grade in the Public Works Department, and that a certain number of appointments in the superior grades should be reserved for Sub-Assistants.

I suppose it rarely happens that a man of your age attains to the position you have attained in the Sub-Assistants' grade?—I think there are men who are senior to me as Sub-Assistants whose service has been shorter.

How did that come about?—In the case of the 1st grade Sub-Assistant Superintendents, they were taken from the 1st and 2nd grades of Telegraph-Masters; and in the case of 2nd

The *President*—contd.

grade Sub-Assistants, they were taken from the 2nd and 3rd grade Telegraph-Masters. The last ten appointments, in which I was included, appear to have been made by selection from men specially recommended. I consider that, when in charge of sub-divisions, Sub-Assistants should receive the same travelling allowance as Assistants. As it is, they are only allowed a 2nd class railway pass and a daily allowance of Rs. 3, or else a single 2nd class fare in addition to the pass. I think also that Sub-Assistant Superintendents should get a few of the superior appointments, seeing that they have undergone a long course of training in all branches of the Department. A Sub-Assistant must know the accounts of the Department thoroughly; he must be an Electrician, Store-keeper, and a good Correspondence Clerk. He is usually in charge of a very large office and a staff composed of men of different dispositions and creeds, so that he must possess very great tact also. Such a man would be eminently useful to the Department as an Assistant.

Could you get such a man young enough to be an Assistant Superintendent?—That could very easily be managed by promoting them earlier.

The Hon'ble Mr. *Quinton.*

Are the men who enter the lower grades of the Department men of good education?—The men who entered 20 or 25 years ago were not, but the men we are getting in now are very much better educated; I consider them very superior men.

Sittings at Simla.

WITNESS No. V.—16*th May*, 1887.

C. H. Reynolds, Esq.

Examination of C. H. REYNOLDS, ESQ., Acting Director, Traffic Branch.

The *President.*

When did you join the Department?—In 1868. I had for three years previously been employed in a Bank in England.

Had you undergone any technical training before you came to this country?—Yes. After passing in 1866 the preliminary competition limited to nominees of the Secretary of State, I attended courses of technical instruction at University College, London. I also studied under Mr. Preece, the present Electrician of the British Postal Department, at Southampton, and subsequently under Sir William Thomson, at Glasgow University. The whole course of my training extended over a period of about 16 months, rather shorter than that prescribed, on account of there being a great demand for men in India. In this country I was first posted to the Director-General's office, where I remained for about a year. I was than appointed to take charge of the Telegraph office in Calcutta, which appointment I held for a few months, when I was again posted to the Director-General's office, where I remained for about two years. I then went into the Construction Department. I constructed a line in the Panjáb between Umballa and Lahore. On its completion I returned to

The *President.*—contd.

the Director-General's office as Personal Assistant to the Director-General. Subsequently I was employed on construction in the Panjáb and North-Western Provinces, and afterwards in Behar during the famine of 1874. In 1876, I had charge of a sub-division in the south of the Bombay Presidency, and in 1880 I had charge of one in Rájputána. In both of these charges I had a large amount of construction work. I have also held charge of the Bengal and Indore divisions, of the Calcutta storeyard and workshops, and of the Calcutta Check office.

Are the Calcutta workshops and storeyard committed to the charge of one officer?—They were combined when I had charge of them, but they are now separate.

Does the charge of stores necessitate the employment of an Engineer?—No; it requires a man who is perfectly familiar with the working of the Department and the construction of lines, because there are minute differences in material and other things, which a man who has had no experience of construction or telegraphy would be very much at sea about.

The *President*—contd.

Will you kindly describle to us the duties of the principal officers of the Department next to the Director-General?—The officer next subordinate to the Director-General is the Deputy Director-General. He is said to be the *alter ego* of the Director-General; but when both are present, he usually takes as his particular branch all work connected with accounts, railways, private lines, telephones, stores and buildings; a good deal of technical work also is allotted to him, and he controls other branches also. All technical work connected with instruments and apparatus, proposals for alterations in methods of working, and a good number of the electrical questions which arise are usually taken up by the Deputy Director-General in connection with the Director of Traffic. He has less of routine work than the Director of Traffic. The duties of the latter officer are very much what the term Director of Traffic implies. In the first place, he has to regulate according to traffic requirements the establishments in signal offices all over the country, arrange transfers from one division to another, and see that the Signallers are periodically transferred from unhealthy divisions. The work is of a nature to require constant watching and regulation, as changes are always going on. Electrical questions, such as alterations and improvements in methods of working, all come before the Director of Traffic in conjunction with the Director-General or Deputy Director-General, as well as all projects for extensions. The control of the actual electrical working devolves primarily on the Director of Traffic. The Director of Traffic also conducts all ordinary correspondence in connection with tariff matters, message, revenue, signal office regulations and discipline, arrangements with the Press, and also with the Postal Department on the subject of combind postal-telegraph offices. The tariffs with foreign countries, which are very voluminous and complicated, are prepared and issued under his orders. The Electrician and the Superintendent of the Check office are in constant communication with him. The Director of the Construction Branch is another officer of the directing staff, who will himself explain the nature of his duties to you.

What are the duties of a Superintendent?—There are a few special appointments held by Superintendents, such as the charge of the stores, workshops, Check office, and of the Electrical branch; but a Superintendent has usually charge of a division, in which he is responsible for all construction work and establishment, as well as for everything connected with signal office establishments and discipline. In his division he is supreme, subject to reference to the Director-General in all matters beyond his powers as defined by the regulations of the Department. He transfers men within his division, regulates the numerical strength of establishments according to circumstances, grants leave, supplies funds, maintains the discipline of the division. He corresponds with the Direction, and is responsible for the good working of the lines and office and the general

The *President*—contd.

administration of his division. The accounts of the division are submitted to the Audit office through him, and he has to examine aud check all estimates for work or repairs.

Is his division conterminous generally with a Province?—No; it is arranged in accordance with traffic requirements and facilities for travelling: some divisions are large and some are small. For instance, the Bengal division extends from Calcutta to Delhi, because it takes in the East Indian Railway, which it was convenient for us to keep within the charge of one Superintendent. Some divisions are much smaller—the Assam division, for instance.

What are the duties of Assistant Superintendents?—They have charge of sub-divisions and of certain large Telegraph offices. Each division is subdivided according to the nature of the country and the extent of the duties which devolve upon the officer in charge. The Assistant Superintendent is the executive officer; he has to maintain communication in his subdivision, inspect the offices, and carry out repairs and construction works. He also examines the office staff in signalling, and in many places has the technical supervision and maintenance of the railway offices as well as of any of our own telephone and other private lines within his district.

What is the usual extent of a sub-divisional charge?—It depends very much on the means of getting about. Some sub-divisions are as much as eight to nine hundred miles in length; others embrace country liable to inundation and without railways, and are kept within a much smaller limit. As a rule, they vary in size from four to six hundred miles, the majority being five or six hundred miles in extent.

Who are the Honorary Assistant Superintendents?—Formerly we had a few officers called Sub-Assistants, and some of them after long and good service were granted the title of Honorary Assistant Superintendents. The class of Sub-Assistant Superintendents into which the old class of Sub-Assistants has merged has since been very much enlarged. Their duties are similar to those of Assistant Superintendents, but are of a less important nature.

The officers in the Honorary Assistant grade apparently receive the same salaries as Sub-Assistant Superintendents of the 1st grade?—Yes.

And one of them, Mr. Gerrard, is in charge of the Bombay Store Depôt?—Yes. That is an appointment which has never, except perhaps occasionally, been held by an Assistant Superintendent. Before the Bombay Depôt had the importance it has now, the Commissary of Ordnance in Bombay had charge of it; but when communications by railway were opened up, the importance of this depôt increased very much. Mr. Gerrard, who had been long employed on construction duties, was then appointed to take charge of it. He originally entered the Depart-

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The *President*—contd.

ment as a Signaller. The post is subordinate to the Calcutta Store Depôt.

It is one of considerable importance, is it not?—Of very considerable importance, but the officer in charge is subordinate to the Chief Superintendent of Stores in Calcutta and acts under his orders.

As regards the issue of stores: I suppose this officer is quite competent to discharge that duty?—Yes.

And also to take charge of materials while in store?—Quite so. He is perfectly competent to be Storekeeper. He has, however, nothing to do with regulating the supplies of stores or with indenting.

Who indents for stores?—Indents are prepared by the Chief Superintendent of Stores in communication with the Deputy Director-General and the Director of Construction.

Is the Ganjam Division a difficult one?—In parts it is.

It includes the longest air span of cable in the world, I believe?—Yes; that over the Kishtna river in the Nellore Sub-division. The officer in charge of that sub-division, Mr. Webster, is an Honorary Assistant. He was for over two years in the Calcutta Storeyard as a subordinate. He has also been employed in other sub-divisions and on construction: he has shown himself very good in construction work. He entered the Department as a Signaller.

His charge is important so far as engineering goes?—Yes. There is also a good deal of traffic connected with it, but there are alternatives to that line in case it or the lines in the adjoining coast sub-divisions should be broken down, as frequently happens, by cyclones.

But so far as natural difficulties are concerned, it is not an easy line?—It was solidly constructed originally, and does not give a great deal of trouble.

Several of the Sub-Assistant Superintendents are in sub-divisional charge; are they not?—Yes.

Their number has been increased, I believe?—Yes.

And the number of your sub-divisions will be constantly increasing?—Yes.

In time, therefore, the subordinate establishment will be in charge of most of these sub-divisions?—Yes; of the less important ones.

Have officers of the Sub-Assistant class proved themselves efficient when in charge of sub-divisions?—On the whole they have succeeded very well. We have been disappointed in some, and some have had to be reduced or punished, not having proved steady or competent to fill positions of responsibility; but, as a rule, the experiment of appointing them to sub-divisions has succeeded very well indeed: I should say there were a large number of sub-divisions which might advantageously be held by officers of this class.

The *President*—contd.

Do not all these Sub-Assistants enter the Department on very low pay?—They all enter as Signallers on Rs. 40 a month.

Not one of them has been trained at Rurki?—No.

Are they all men of some age?—Many of them are men between the ages of 30 and 40 and some of them are even older. There was a difficulty in selecting younger men, when promotions were available, as long service and seniority had to be considered. As Signallers, they enter at about 16. There are a great many boys of 14 or 15 now in the Lawrence Asylums under training.

Have you never recruited this class from the Indian Engineering Colleges?—I am not quite certain. We did, I know, formerly take on some men appointed in India as Inspectors (the designation being afterwards changed to Assistant Superintendent). We have several of these men now in the Department. We have also some gentlemen, sons of officers in the Department recruited in this country, who were taken into the Department either as Inspectors or Signallers.

In recruiting for the superior grades, do you consider it better to take men from the Lawrence Asylum or from Rurki?—I should prefer to recruit from the signalling branch.

For what reason?—Because I think it would give encouragement to the lower service to let men know that they could rise from the working to the controlling grades.

Would you not get better men for the scientific department from Rurki?—The supply of officers from England being kept up, I should prefer to promote from the signalling staff.

But if that supply is not maintained or is reduced?—In that case it would be better to resort to Rurki in recruiting for the higher grades.

Do you know who are the officers who have charge of the training classes at Rurki?—I am not personally acquainted with them.

Are they Royal Engineers?—I believe so.

Some Royal Engineers must, I believe, keep themselves acquainted with the latest discoveries in electrical mechanism?—Not necessarily in Telegraphy proper, which is a profession in itself. I judge so from the fact that they frequently come to the Department for information on telegraphic matters. The men educated in the Lawrence Asylum, whom I would promote, are men who have done ten years' service as practical telegraphists in the Department and proved themselves fit for further advancement. I think by taking men of that class we should get better officers.

Have you met any of the Engineers educated at Rurki?—Yes; I have met them on duty occasionally.

Have you found them competent men?—As far as I could judge, they were considered so by their superiors.

The *President*—contd.

Of the men annually recruited from Cooper's Hill for your Department, how many have you known?—I have met them, but cannot say that I have known any of them very intimately.

Do you know anything of their work?—They have not served under me; at least I cannot recollect at present whether they have or not, because I have not been, of late years, in the particular branch of the Department in which they are employed.

How long is it since you commenced recruiting from Cooper's Hill?—Since 1878.

The Hon'ble Mr. *Quinton.*

Do you consider that among the men who at present have charge of sub-divisions there are any qualified to become Assistant Superintendents?—I should not like to say there were none, but I am not sure that there are any.

In what respect do you think they would fail in case any of them were promoted?—To a great extent in want of confidence in themselves; and their inferior social position would be rather a drawback: then, again, I do not think their ideas of discipline are always so correct as those of men who have had an English training. In many instances where they have been withdrawn from control it has actually happened that they have fallen into intimacy with their subordinates.

The *President.*

How would their inferior social position affect their efficiency as public officials?—In this way: they have frequently to meet officials in other Departments, and to associate with and address them as equals. I think they feel a little want of confidence in themselves.

Would the standard of education of these men be lower than that of officers of similar standing in other departments?—Except in their own profession it would be; some of them have shown great diligence in working up their own profession, but in general education I think they are, as a rule, deficient.

Sir *A. Cappel.*

Do you think they could be fully relied upon on occasions of emergency?—No. For example, I do not think they would be suitable to send on a campaign. We are liable to be sent with military expeditions, and if I had to select the men who were to go in charge of a field telegraph, where they had to deal in an independent position with military officers, I know of no man of that class whom I should choose for the purpose.

The *President.*

What do you mean by "want of confidence?"—Want of resource, of capacity and will to take the initiative and incur responsibilities. They would be inclined to wait for orders, and their deficiency in general education and want of social position, would put them at a disadvantage in securing departmental interests.

The *President*—contd.

You say they are as a class men of little education and of inferior social position?—Yes.

Why would you not anticipate getting better men from Rurki, who would be both of higher educational attainments and social position than the Lawrence Asylum boys?—I have stated that I would prefer to get the Rurki men, only that I wish to give an opportunity of promotion to suitable men who have risen from the working grades. I prefer to give promotion, within the Department, subject to a proportion at all events, of the superior officers being obtained from England.

But you say you cannot promote these men because there are none good enough?—Some are good enough: we have some Superintendents who have risen from that class. I could instance the case of a Signaller from the Lawrence Asylum who passed first in an examination in general education which was held for promotion in the Department. He has since seen his way to something better and is now in the Public Works Department.

The question is whether you should not bring in men who possess the qualities in which these men are generally lacking?—We have some men in the higher grades who have risen from the signalling establishment. Our Chief Superintendent in Burma is one of them.

How many men have you in the superior grades who have so risen?—We have now three, two of whom are Assistant Superintendents and one is a Superintendent. Twenty years ago we had a good many, some have since died, some have retired, and some were reduced; a few have risen high and been a success, but others have failed as Superintendents, and have not risen higher than Assistant Superintendents.

I notice that you have two Eurasians in the superior grade; how did they enter the Department?—One came out on the nomination of the Secretary of State and the other from Cooper's Hill.

Sir *A. Cappel.*

Why do you consider it necessary that we should recruit in England?—I consider we should get better men by so doing than we should get in India.

The *President.*

Have you yet tried to get the men you want for your superior appointments in India?—Not of late years, but I have my opinion on the subject. I consider that it is a great advantage to the Department that we should have a certain number at all events of men in the superior grades, who are in the habit of taking leave to England and keeping touch with European Telegraphy, and who personally know the officials of other countries. Having regard to the fact that Telegraphy is a progressive science, I think we should sacrifice the efficiency of the Department if we were to recruit entirely in this country.

The *President*—contd.

I understand you to say the present Sub-Assistants apply themselves diligently to the study of Telegraphy?—We place the means of doing so at their disposal, and some have attained considerable knowledge.

Is there any man in your Department who has done so much for electrical machinery as Mr. Winter in Madras has done?—I do not think there is. Mr. Winter is a man who frequently visits England.

And so would some of the youths recruited in this country, would they not?—I doubt whether many of them would.

Have you known any of the boys who are educated at the Mussoorie and other hill schools?—I cannot say that I have. In saying that I know of no men in the lower grades at present who are fit for promotion, I should wish to add that, in the large staff we employ in the signalling branch, there is little doubt there are men who would be fit for any post, and I should desire to see an opening afforded for the promotion of men of that class who distinguished themselves.

Can you tell me whether the Cooper's Hill men have suffered at all from the block in promotion?—As the Cooper's Hill men receive during the first ten years of their service annual increments of salary for approved service, irrespective of vacancies, and as none of them have yet served ten years, the block in promotion has not yet affected them. The first of the Cooper's Hill men was appointed towards the end of 1878.

Sir *A. Cappel.*

The Cooper's Hill men appointed to the Department are not, I believe, regarded as employed in a branch of the Public Works Department?—No.

And it is incorrect to speak of them as belonging to a branch of the Public Works Department?—Yes.

Is it not the fact that no qualified or deserving officer of 15 years' service in the Department is drawing less than Rs. 600 monthly?—The Government have recognised the block in promotion and have granted personal allowances, raising the pay to Rs. 600 after 15 years' service and to Rs. 700 after 20 years' approved service. The statement of Mr. Duthy (examined in Lahore) is therefore misleading, and if the person Mr. Duthy referred to gets less, it is due to his own demerits.

His statement also with regard to the granting of presidency allowances in presidency towns is also inaccurate?—Yes; it arose from a misapprehension of the purport of the letter from Government to which he referred. The Government have not sanctioned presidency allowances to Telegraph Officers as many officers have been informed on enquiry. With reference to what the same witness says about the frequency of transfers, it is quite true that Mr. Duthy himself was transferred 16 times during the first ten years of his service; but those transfers were partly on account of urgent construction operations, military expeditions, and special construction work in Kashmir; and it is a fact that within the last eight years of his service he has not been transferred once. The work of the Department demands great mobility on the part of its small staff of superior officers.

Sir *A. Cappel*—contd.

Can you tell us why there are apparently so few Asiatic Natives who have risen from the Signaller grade to Telegraph-Masterships as compared with the number of Eurasians who have so risen?—I think every Native of sufficient service in the Department has had an opportunity of becoming a Telegraph-Master; but many have shown themselves unfit for promotion to that post on account of their incapacity to control European and Eurasian subordinates.

The *President.*

Is it a fact that the proportion of Native Signallers who have become Telegraph-Masters is less than that of the Europeans who have done so?—I do not think so. We find Native Telegraph-Masters very suitable for the work at small stations. They have little night work to do, and in the Madras Presidency, on the Hughli river lines, and other places, we have always employed many Native Telegraph-Masters.

How is it that Natives of Asiatic parentage do not enter the Department more freely?—I should say the work is too hard for them, and also there is the liability to night duty and distant transfer. In fact, there is too much hustling and bustling, and an absence of the dignity and repose so attractive to the higher classes of educated Natives. The small number of subordinates assigned to the sub-divisions and offices is not conducive to Native ideas of dignity. A telegraph official is often called on to do things himself, and has sometimes no one to assist him, not even a peon.

You say Asiatic Natives dislike night duty. Have you recruited many in the Upper Provinces of India, or from the more robust races?—We have a good many such men among the Signallers in the Panjáb and Sind, but the knowledge of English in those provinces has hitherto been found insufficient to afford a large supply. Mahomedans are beginning to come in, but they do not like the night work nor the transfers any better than do the Natives of the Lower Provinces. The fact is, that if they become sufficiently educated for us, they can get work in their own province, and they dislike taking service in an Imperial Department in which they may be sent to Burma or anywhere else. Some years ago we had a Bráhman peon in the Lucknow office. He taught himself English, became a Linesman, and afterwards rose to be a first grade Sub-Inspector, owing to his knowledge of English as well as of line work. That is one of the very rare cases I recollect of a comparatively educated Native being fit for line work and roughing it. He was one of those men who have a mechanical eye—the men we want and are most anxious to employ; but we

The *President*—contd.

find these qualities are rarely combined with an English education.

Have you employed any Maratha Bráhmans in the Department?—We have some as Signallers and Sub-Inspectors.

What is your experience of their capacity?—They are very clever as a class.

Have they shown any capacity for higher employment?—I do not think so. The men we have are not sufficiently educated nor of a sufficiently high class, and they also object to leaving the Maratha country.

Have you any Parsis in the Department?—Yes; as Signallers: and we have a Parsi Telegraph-Master in the Central Provinces, who has done very well; we also have a Parsi Instrument Inspector in Bombay, who has shown ability.

Have you anything further to add?—

I wish to remark with reference to a statement made by Mr. Murray, a Telegraph Sub-Assistant Superintendent examined at Lahore, to the effect that our signalling standard of 20 words a minute is so difficult that few are able to attain to it, that the present standard is one which has been in force many years and is by no means excessive. The whole staff are examined annually according to this standard, and the number of failures is trifling. An additional test in code and figures only is also now required from the higher grades and from selected Signallers who deal with foreign traffic. This test was imposed in the interests of the public, owing to the absolute necessity of obtaining greater accuracy in dealing with this class of traffic, and a sufficient number of good Operators easily pass it. I should like also to repeat that while I have no objection to urge against a partial recruitment in India for the superior grades of the Department, I think it would be a vital mistake to cut off altogether our recruitment in England. By recruiting in England the tone of the Department is maintained: and men trained in this country are encouraged to work up to the English standard. There were formerly great complaints from other countries of the inefficiency of the Indian Telegraph Department; these have no longer any existence: but our obligations to the Government, the public, and the foreign administrations with which we are associated in carrying on the international telegraph traffic of the world, require that our efficiency should be most rigidly maintained.

The *President*—contd.

WITNESS No. VI.—16*th May*, 1887.

Examination of W. R. BROOKE, Esq., Director, Construction Branch.

W. R. Brooke, Esq.

The *President.*

Where did you receive your technical education?—I attended the special class which was in those days held at Gresham House, London.

When did you join the Indian Telegraph Department?—I was nominated by the Hon'ble Court of Directors in 1857.

How long had you been studying Telegraphy before you came to this country?—About twelve months.

When you arrived in this country, in what branch of the Department were you employed?—I was first of all posted to Sind, where I was engaged in establishing telegraph offices and constructing the first line which was made in that province. I subsequently served for some time in the Southern Maratha country, and then generally throughout the Bombay Presidency. I have served in various parts of India, *viz.*, Sind, the Panjáb, the Central Provinces, and Bombay. I have visited every part of India as Director of Construction.

And you have had an opportunity of seeing the work of officers of the Department in all parts of India?—Yes.

Do you consider that the subordinate staff of the Department render efficient service when placed in charge of sub-divisions?—They do very well in small sub-divisions, but placed in charge of larger sub-divisions they do not seem to have a sufficient grasp of the work. I think also they are not strong enough to maintain discipline, and that in their dealings with the local officials they sometimes get into trouble which men of a better class would avoid.

The *President*—contd.

The men of whom you speak were all men who entered the Department as Signallers?—Yes; I refer to that class.

They are not as a class men who, before joining the service, have received a liberal education or enjoyed superior social status?—No.

Do you know any man in the subordinate grades whom you consider fit for promotion to the superior grades?—No.

Comparing Natives—that is, persons of pure Asiatic descent—with European and Eurasian subordinates, which do you consider the better men?—We have never had Asiatic Native subordinates employed in charge of sub-divisions, and the reason is that we have never really found one whom we thought fit to put in that position.

You have not found any Natives in the Department of Asiatic birth whom you thought would be fit to take up these appointments?—No.

What is done with officers recruited from Cooper's Hill when they arrive in this country?—As a rule they go through a course of practical instruction in the Calcutta workshops, and, properly, they should remain there from five to six

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The *President*—contd.

months, but, as a matter of fact, we have had to transfer them much sooner to construction duty. After leaving the Calcutta workshops they take up construction, and, having learned the duties connnected with construction, they are appointed to the charge of sub-divisions.

Under whom do they learn the duties connected with construction?—Under senior officers of the Department, Superintendents of divisions, or senior Assistant Superintendents in charge of large sub-divisions, or in charge of important works. We generally put them on important works.

Are they never sent to divisions which are in charge of Sub-Assistant Superintendents?—Never.

Are the officers obtained from Coopers Hill fairly good men?—Very good men.

The *President*—contd.

Have any of them shown extraordinary ability or inventive genius during the nine years you have been recruiting from Cooper's Hill?—Nothing, I think, in the way of inventive genius. They have been frequently called upon to do extremely hard work and under circumstances of great danger. For instance, one of the men lately brought out was sent off immediately on his arrival to Burma and has done very well there.

Are they on their arrival capable of undertaking construction?—No; but they very soon become so, because they are well-grounded in the theoretical part of construction, and they are much quicker in doing so than men could possibly be who have not been so well grounded.

Do you find any difficulty in employing them owing to their ignorance of the language?—No; I have never found any difficulty arise from that.

WITNESS No. VII.—20*th June*, 1887.

Col. H. A. Mallock.

Examination of COL. H. A. MALLOCK, Bengal Staff Corps, Deputy Director-General of Telegraphs.

The *President*.

When did you join the Department?—In 1861.

And from that period you have continuously served in the Department?—Yes.

What do you think of the present system of recruiting for the Department?—I think the superior officers should certainly come from England, and that, if possible, they should be employed either before or some time after they enter the Department in connection with the British Postal Telegraphs, so as to establish a link between the two systems.

Why would you not make selections in this country for the superior establishment?—The superior establishment is now numerically very weak, and as the grades are being reduced in numbers, the work is increasing considerably. I find that whereas on the 1st April, 1887, there were 114 men in the superior establishment, there are now only 97; and that whereas on the 1st April, 1887, the messages amounted in number to 11 lakhs, they are now 25 lakhs; and the message revenue has risen from 23 to 48 lakhs. This means a great deal of extra work. The mileage has increased, but the main point is the increase of messages, which requires that the men employed should be more accustomed to traffic business and varying apparatus. When I first came into the Department we prided ourselves on being able to signal from Calcutta to Benares; but at the present time we have to work much longer distances; the lines have to be duplexed, quadruplexed, and very often this has to be done on an emergency. For instance, during the last cold weather, when Sir Albert Cappel was away, there was a sudden development of traffic owing to the military operations in Burma, and we had to devise all sorts of expedients for hastening the messages. For work of that kind you want men on the spot who thoroughly understand their business.

The *President*—contd.

Is any considerable percentage of the increase in your business due to the combination of postal and telegraph offices?—I do not think that will account for the very great increase which has taken place. No doubt there are a large number of small post-offices which act as feeders; but all this work comes on to the main lines and gives us a great deal of additional trouble. Take Calcutta, for instance: there is a post-office in Alipur; and though to get a post-office message from Alipur to Calcutta is a simple matter, it helps to crowd the main lines. What you want is, a person who understands the better class of instruments; that is, scientific as distinguished from simple apparatus.

Can you tell me how many offices there are with a combined postal and telegraph service?—On the 31st March, 1887, there were 257 departmental and 440 combined offices.

Sir *A. Cappel.*

Do the combined offices require any technical inspection?—Yes; more so than the departmental offices. The departmental offices have their own Telegraph-Master in charge. This office is inspected once a year by a superior officer. The post-offices are not always inspected by one of the superior officers.

The *President*.

Do they require more frequent inspection?—Yes; but the same class of inspection as the railway offices. The offices of the state railways and a great many of those of railway companies are managed by this Department. A great deal of the extra work is due to the construction of railway lines and the working of railway telegraph offices. There may be 240 of these railway offices divided into sections of 80 each, each section being looked after by one Inspector, who belongs to the signalling establishment, and over him is one of the superior officers of the Department.

The *President*—contd.

Does the same class of man inspect the post-offices as inspects the railway offices?—Sometimes he is a sub-divisional officer. Take Calcutta, for instance, as containing several of these offices. There is an Inspecting Telegraph-Master in Calcutta who is continually going about from one office to another.

Are Natives or Europeans best fitted for the work of inspection?—On three sub-divisions of railways we have tried Native Inspectors with a view to economy, but they have been merely as assistants to the others.

How have they done their work?—It is difficult to form an opinion, because they have only been tried as assistants.

The Hon'ble Mr. *Quinton.*

From the way they did their work as assistants, are you able to say that they gave promise of doing well in independent charge?—I remember that we employed one of the men on the regular establishment, a Native, as an Inspector, on the East Indian Railway. In many ways he is an extremely able man and a very good Electrician, but as an Inspector he was an utter failure. For some reason or another he did not exercise sufficient authority.

Sir *A. Cappel.*

Is that the man we promoted because of his extraordinary intellectual capacity?—Yes.

Was not his failure owing to his having quarrelled with his subordinates?—He simply did not get on: he had to be sent back because he did not carry sufficient authority in the office and could not enforce discipline. In other respects he is very intelligent and possesses mathematical and electrical knowledge in a remarkable degree. In his present appointment he makes a very valuable assistant to the Electrician. There is another Native in the Department, a Parsi in Bombay, whose efficiency is open to doubt, but who may ultimately succeed. He is an Instrument Inspector, and has not yet been employed on the railway.

In what capacity do you think he will prove efficient?—As an Inspector on railways.

The *President.*

What is your opinion of the men who have been promoted from the subordinate to the superior grades of the Department? Have they turned out well?—No promotion into the upper grade has been made during the last twenty years. When I first joined the department, there were several such men in the upper grades, and I think that the Department has no reason to regret having lost the services of those of them who have left us. They suited the Department in its first stage when we made use of a single wire and very easy needle instruments; but the real epoch of the Department was when we were joined by the cable to England. From that time we have had to make extensive changes, and men who did very well for the simple system in use at the outset of the Department, were unable later on to keep pace with the changes that were introduced. There are now only five men in the Department who have been promoted from the signalling establishment. One of them is a first class Superintendent and in every way a most reliable man. Three are doing subordinates' work. One of these was taken from a sub-division at the special request of his Superintendent: a subordinate is in his place and he is now occupying a post which has always hitherto been held by a subordinate.

The *President*—contd.

Are the three men you mention not qualified for higher duties?—Certainly of two out of the three I may say that the Superintendent would be only too glad to get subordinates in their places.

The Hon'ble Mr. *Quinton.*

Are they Eurasians or Asiatics?—One of them was born in England, the other two are Europeans born in India. The fourth man succeeded excellently so long as he was subject to immediate control, but he has been in trouble ever since he has been in independent charge. So long as he knew that either his Superintendent or I was likely to be in his camp at a moment's notice, he made admirable lines and did excellent service. His failure may to some extent be owing to intemperate habits. What I had to complain of was his leaving his work to his Native subordinates.

Have you at any time recruited men in the country for the upper grades?—There are only a small number in the Department, and of them one had been specially educated for the Department in England, and his having been taken on here instead of there was a mere accident. He compares favorably with any one in the Department. Of the remaining five, two are very fair, two are failures, and one did very well indeed till he got higher promotion. All these men were British born.

Sir *A. Cappel.*

The failure you speak of was owing to infirmity of temper?—Yes.

The *President.*

You are at present reducing the service and your recruitment will in future be very small. Your present rate of recruitment is, I believe, two per annum?—Yes; and the consequence is that the numbers are steadily falling, while the work is increasing. As I have said, where we had 114 officers, we have now 97. When we had 114 there was not only less work, but for the inspection work required we had a much wider choice. If a man did not do his work in an important section, he was transferred to one of less difficulty. Now-a-days, however, a man who would formerly have been transferred to an unimportant charge can no longer be so, because the unimportant charges are held by men of the subordinate grade, and all the men in the superior grade must be qualified for the more difficult charges. Hence, if we are to go on reducing our numbers, we require that all should be thoroughly qualified men.

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The *President*—contd.

The general business of the Department cannot progress as it ought, unless you secure the utmost efficiency?—Yes; I have already explained that the more the business of the Department increases, the more complex must be the machinery by which it is carried on, and therefore the greater the efficiency which is required on the part of the officers who control it.

I believe that in this country you are frequently called upon to furnish officers to accompany expeditions across the frontier?—1864 was, I think, the first year in which any establishment from this Department was sent on field service with armed forces. Three officers were employed in the Mutiny, because they were on the spot; but it was not till 1864 that the Department was called upon to supply telegraphs for forces in the field; and from that time until now there has hardly been a year in which some special demand of the kind has not been made upon us. In Upper Burma till recently there was practically no postal service except in the large towns. There the telegraphs have been managed by the Department and to a great extent worked by soldier Signallers. Upper Burma is now a division which, in respect of the number of its offices, is equal to the largest division we have ever had. I believe the number of officers employed there is fifty-two.

How many of your superior staff have you detailed for service with the forces in Burma?—Eight.

I believe during the late Afghan War you had three lines to maintain?—Yes; the Kurram, Kandahar, and Kabul lines.

How many of its superior officers did the Department furnish on that occasion?—When I came out from England in 1880 there were nine actually employed.

Is the fact, that the Department is called upon to supply officers to these military expedition, one of your reasons for suggesting that the upper establishment should be recruited from England?—That is one reason. With regard to the recruitment from England, I wish to say that it is a great mistake to bring out what I may call depreciated men. Our men come from Cooper's Hill along with men for the Public Works Department; but they come out after having undergone a shorter training, and they are required to serve on less pay than the men recruited for the Public Works Department. The recruits for our services are taken after a selection has already been made of fifteen a year for the Public Works, and they come out to inferior prospects, the result being that this service is less attractive to officers of the best type. I have reason to know that this feeling operates from conversations I have had with youths in England at the public schools, who were intended for Cooper's Hill. I also consider that if the Department is to be recruited from Cooper's Hill, the course there should be continued to its full term of three years.

The *President*—contd.

Would you offer any direct appointments in the superior grades of the Department for competition in this country?—I think it would be objectionable, for this reason, that if we get men from Cooper's Hill, we get men by a competition which is certain; whereas with the very limited number of youths in this country of suitable education and character, you would probably have only one school to which to give a prize of this sort, and to all intents and purposes there would be no competition at all.

Are there not four Engineering Colleges in India?—I attach great importance not only to education but also to European habits of thought. I do not advocate any race distinction; but the Department requires a class of men who, having passed out of a public school and having been to a technical college in Europe, are consequently able to hold their own with others, and are also likely to keep themselves acquainted with the continual progress going on not only in England but throughout the whole of Europe. As an example, in Calcutta there are several Armenians, gentlemen who were brought up at Harrow and afterwards, I believe, at a university, who can not only mix with Englishmen in every way, but hold their own in everything they do.

The Hon'ble Mr. *Quinton.*

Are the men you get from Cooper's Hill of use immediately on their arrival, or does it take some time before they are really qualified for work?—It has been necessary to put them through a certain apprenticeship, like every man we have had wherever he came from.

Does the training received at Cooper's Hill give Cooper's Hill men an advantage over the men who are without such training though equally well educated generally?—I think not. Certainly the training given at Cooper's Hill is not equal to the training our first recruits obtained at Southampton for telegraph work in general. The men who having received an ordinary school education, then passed a qualifying examination, and finally attended a special telegraph class at Southampton, certainly fell into their work better.

The *President.*

Those officers were of a riper age when they joined the Department?—Yes.

Sir *A. Cappel.*

Do you think that any training in England, however good, which you could devise for your assistants, would dispense with the desirability of giving them, say, twelve months' instruction? Do you think you could get a young man of twenty-two with the best education, technical and other, whom you could put in charge of a sub-division at once?—If he had had a special telegraph training at home he would not want as long an apprenticeship as a man who had had none. He would want some acquaintance with the vernacular and also local knowledge and a knowledge of local processes. It is of the

Sir *A. Cappel*—contd.

greatest importance, if it can be managed, that our men, either before they come to us or after they have been with us three or four years, should have an opportunity of becoming acquainted with the details of European telegraphy.

The Hon'ble Mr. *Quinton.*

That forms no part of the instruction at Cooper's Hill?—No; no college or school course could give such knowledge. One, if not two, of the men who were nominated and educated for this Department, have done much better by leaving it. One of them never came to us, and the other left us. One is a distinguished electrician in England. At the present moment he is a Fellow of the Royal Society of Electricians and Vice President of the Society of Electricians, of which Society he will be President. He is also Professor of Electricity in the North London College.

The *President.*

If your object be to enlist men who have had some practical experience of telegraphy at home, do you consider that the prospects of the Department are such as to induce such men to enter it?—A man entering our Department starts upon Rs. 250 and rises to Rs. 500 in ten years. His next steps are Rs. 600, Rs. 700, Rs. 800; and the next is a progressive grade with a mean of Rs. 1,000 rising to Rs. 1,500. Except for the first year or two, I think the prospects would be good enough to induce such men to enter the Department and to keep them in it, if the rate of promotion were what it appears to be from merely looking at the rates of pay, and if there were a continuous flow of promotion instead of the present block caused by large numbers having been engaged within a very short time. In saying this I am considering the great want of openings for employment in England.

Sir *A. Cappel.*

Assuming everything to be normal, does it not mean that he would get Rs. 800 a month after twenty years' service?—I am considering the number of men in want of employment in England. When I said that I considered the prospects of the Department sufficient to attract certain men, I was taking into account that you get them when they are young, and before they have proved themselves to be good men. If we were to go into the market and say we wanted men of twenty-seven or twenty-eight years of age, who could bring us first rate testimonials, we should have to pay such men higher. When we engage men of the age of twenty, we pay for average qualifications; and some of them turn out above and others below that average.

You would have the initial pay higher?—Yes.

The *President.*

I believe you recruit a certain number of your Signallers from the Lawrence Asylum?—The Lawrence Asylum at Ootacamund undoubtedly gives us the best men. The class at the Lawrence Asylum at Sanawar has only just been restarted. We have had a few men from it, but no continuous flow; whereas the Ootacamund Asylum has been for a very long time the source of supply of our best Signallers, and the reason is that they are for two years in training under a very good master maintained there by this Department.

The President—contd.

The Hon'ble Mr. *Quinton.*

Are they generally the sons of Europeans?—There are more Eurasians among the sons of British soldiers in the Madras Presidency than in Northern India, consequently a larger proportion of Eurasians come from Ootacamund than from Sanawar.

The *President.*

I believe you have a good many Signallers of Asiatic parentage. How do they do their work?—I have noticed while travelling about the country that every Asiatic likes to live near his home. We have in the Department what are called "general service Signallers," and "local Signallers." The latter get less pay, and it will be found on inspecting the list that the greater number of this class are of pure Asiatic parentage. The difficulty is to get such men to move into another province. It is harder to move a Bengali to Sind than it is to send a European or a man of European parentage to any part of the world. And this remark applies not only to Bengalis. I have known a Poona Brâhman exhibit the same objection to the North-West frontier. The reason for maintaining the distinction between local and general Signallers is that, if we had all our Signallers local, we should be compelled to keep a reserve of a certain number of men at each of the headquarters, and to enable us to do so, the number of our Signallers would have to be enormously increased; whereas under the present system we have one reserve for the whole of India. That is, however, only one reason. Suppose we have sixteen divisions; with a margin in each division we could manage the Department so long as its operations were confined within the limits of those divisions; but whenever its operations embraced a new area, we should be compelled to engage as Signallers for this area volunteers on double pay. The system of general service Signallers, then, not only gives us a general reserve for all India, but enables us to take up any new ground, whether it may be towards Siam or beyond Upper Burma.

If you had not had these general service men, could you have carried on the work in Upper Burma?—The local men would not have gone there. Of course, there are exceptions; but I am quite certain that none of the local men would have shown willingness to go. There is one result of this system of which the general service Signallers sometimes complain, *viz.*, that when there is a large proportion of local Signallers, the liability to transfer presses hardly on a small number of general service Signallers. A similar difficulty arises from the employment of women in the London Telegraph Offices. Women Signallers are cheaper than men, but

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The *President*—contd.

they are only employed in the day time; and when there is any stress of night work, the whole of it falls on the men. So it is with our officers. When there is any stress of work or any extension going on, it is not the local Signallers who are put to the discomfort of a move, but it is the general service Signallers who, although they get extra pay, suffer in pocket, and are exposed to various inconveniences. It must be remembered that the position of the Department differs from that of a similar depart-

The *President*—contd.

ment in more advanced countries. Take New York as an instance. There you could easily expand your service on a few hours' notice, by issuing an advertisement for Signallers; but here we have to train every man in the Department. Men do not learn telegraphy on the chance of finding employment.

Does the service enjoy the same pension rules as the Public Works Department?—Those in the superior grade do.

WITNESS No. VIII.—20*th June*, 1887.

P. V. Luke, Esq.

Examination of P. V. LUKE, ESQ., C.I.E., Acting Superintendent, 1st grade.

The *President.*

When did you join the Department? In January, 1868, on being appointed in England by the Secretary of State.

What technical education had you received before you joined the Department?—The same as the other officers who were appointed at the same time. After passing a preliminary examination I went through a course of Physical Science in the London University, and afterwards I attended a course of telegraphic instruction at the Telegraphic Institute, at Southampton and subsequently I went through a practical course under Mr. Preece.

Is it in your opinion desirable that the superior grades of the Department should continue to be recruited in England?—Yes; I think we ought to get the best class of men we possibly can.

We have been told that the Department is reducing its numbers, and that you require greater efficiency in each individual and a higher average of efficiency throughout the service as the complexity of the work and its area increase. Do you concur in that opinion?—Yes.

We have also been informed that since 1864 there has devolved upon the Department the duty of supplying forces in the field with field telegraph establishments, and I believe you have yourself formed part of one of those establishments?—I have.

Will you kindly say from your experience what the qualifications are which it is desirable that an officer appointed to such an establishment should possess?—I was employed in the first and second Afghan Campaigns, from 1878 to 1880, and was in charge of a line stretching from Peshawar to Cabul. There were three such lines, one from Peshawar to Cabul, of which I had charge. In the first campaign I had under me Mr. Duthy, in the second Mr. —— and Mr. Towers.

Sir *A. Cappel.*

Do you consider that those gentlemen possessed the qualifications essential for the carrying on of the work, and which could only be the outcome of an English education?—I think so. I think that, having to associate, as they had on field

Sir *A. Cappel*—contd.

service, with officers of a certain standing, it was in the first place essential that they should be on the same social footing as those with whom they were called upon to act; and, beyond that, I think that their English training and education fitted them for that kind of work.

The *President.*

Who constructed the line from Peshawar to Cabul?—We did. We employed as large a civil staff as we could, and as much of the local labor as we could, supplemented to a certain extent by working parties from different regiments.

Used you to direct the military officers who were in charge of those working parties?—As a rule the working parties were never sent under the charge of a European officer. They were supplied by Native regiments, and were placed under the charge of a Havildár; and we used practically to take charge ourselves. It frequently happened that we had to camp out at a distance from the forces to which we were attached, and, being the only Europeans there, we were practically in charge and had to set our own sentries. In fact, we had to take military command of these parties.

Sir *A. Cappel.*

On one occasion had not an officer on the Kandahar line military duties assigned to him in addition to his ordinary duties?—Yes.

The *President.*

During the campaign you were as much subjected to danger as a combatant officer?—Quite as much. In fact, having at times to carry our work at a distance from the military posts, we sometimes were less protected.

The Hon'ble Mr. *Quinton.*

Were you able to place telegraphic communication constantly at the disposal of the officer Commanding-in-Chief?—So far as we were allowed to do so.

How far were you able to keep up with the movements of the forces?—We were not allowed to proceed with the construction of the line with as much rapidity as we could have done. It was considered useless to do so until the

The Hon'ble Mr. *Quinton*—contd.

country was sufficiently in hand to admit of the line being kept in working order. I received two telegrams from the Viceroy congratulating me on the celerity with which the line was carried to Cabul.

Sir *A. Cappel.*

It has now been finally decided that a military field telegraph is unnecessary, and that the army must rely on the civil department?—It has.

And if that scheme is carried out, the sapper organization, which we call an advance telegraph, will be subordinated to the chief civil officer in the field?—Yes.

And it is in contemplation to give military rank to all Telegraph Officers while in the field?—Relative rank. I believe it is.

The *President.*

You have recently visited England?—Yes; I took advantage of the opportunity to see what was being done in the way of military telegraphs. Manœuvres were being conducted on Salisbury Plain, and I took advantage of an invitation to witness those operations.

I believe you are now in Simla on duty in connection with the organization of field telegraphs?—Yes.

Have you studied other branches of telegraphy in your visits to Europe?—Yes; and I have been to America and Canada and inspected the systems in use there.

Do you consider that the Telegraph Department in this country compares favourably with those whose operations you have witnessed in other countries?—Considering the circumstances of India, I think it does most certainly. This is a country where there is no competition. Telegraphy is a Government monopoly, and we are not driven to improvements.

Sir *A. Cappel.*

Do you think it desirable to establish a competition examination in India for appointments in this Department?—Having regard to the fact that the circumstances of India are so different from those of other countries, I think it is not.

The *President.*

Do you consider that the efficiency of the Department would be maintained if you were to recruit the superior grades from Natives of India?—No; I do not think you would get a class of men who would be likely to keep touch with what is going on in telegraphy in Europe and America.

The Hon'ble Mr. *Quinton.*

Do you think the men recruited in this country would have the same energy and resource in emergencies?—I have no means of judging that.

Sir *A. Cappel.*

You are speaking now of Statutory Natives as well as of Asiatics?—Yes.

Sir *A. Cappel.*—contd.

A great portion of your ordinary work is performed under circumstances very similar to those under which work is performed by an officer with an army in the field?—Yes; for instance, when a line has to be laid in remote mountainous and frontier districts and neighbourhoods. I should like to say with reference to recruiting for the Department, that the immense political importance of the Telegraph Department in India should always be considered in the same way as the question of artillery service is considered, and that there should only be recruited for this Department a class of men on whom implicit reliance can be placed in times of emergency.

The *President.*

What is your opinion of the efficiency of the officers appointed to the Department from Cooper's Hill?—I have not very much experience of their work, having only had one or two of them as my subordinates; but I think we could get better trained men from Cooper's Hill if the duration of the course of instruction there for the Telegraph Department were the same as it is for the Engineering Department. The Telegraph officers appointed from Cooper's Hill labour at present under the disadvantage of having had a year's less training, and I think it would improve them to give them that year's training either at Cooper's Hill or at some other school where they could obtain it.

But even if the period of training were of the same duration, the inferior prospects offered by the Telegraph Department would not secure for it as good men as would be attracted by the superior advantages offered by the Department of Public Works?—Compared with the Public Works and the Forest Departments, both of which are recruited from Cooper's Hill, the work of our Department is far more arduous and at times the exposure we undergo is extreme. We have frequently to undertake cable laying. I was myself deputed to repair the cable which crosses the straits between India and Ceylon. I was sent to the spot from Colombo in a hopper barge and was exposed for many days to the full heat of the sun. I have also had to lay cables in Arakan, where the exposure was very great. With proper appliances the work of cable laying does not necessarily involve exposure; but exposure cannot be avoided when the work has to be carried out without such appliances. In this country you have to do the best you can with makeshifts, country boats and manual labour.

Having regard to the prospects of the service and the nature of its duties, you are of opinion that the service is not likely to be so attractive as the Public Works and Forest Departments?—Yes.

And, therefore, to attract equally good men to it, you would propose a higher rate of pay?—At any rate, I think the officers of this Department should be placed on the same footing in respect of pay and prospects of promotion as the officers in the Department of Public Works.

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Henry Black, Esq.

Sittings at Bombay.

WITNESS No. IX.—*23rd July*, 1887.

Examination of HENRY BLACK, ESQ., Telegraph-Master.

The *President.*

I entered the Department on the 3rd December, 1856, as a Signaller. I was educated at the Poona Central School. I was three years a Signaller and then became an Assistant in charge, or as it is now called a Telegraph-Master. I have also been engaged fourteen years on construction as an Inspector. I had charge of the Dera Ghâzi Khan Sub-division for eighteen months. Dera Ghâzi Khan is a frontier subdivision in Sind.

(*Reads*)—

The number of Telegraph-Masters and Signallers is not fixed. They are engaged according to the traffic requirement. A Signaller is not dismissed if the traffic again falls. Signallers are promoted to be Telegraph-Masters according to the needs of the service, but they cease to be Telegraph-Masters, or at least to draw the extra allowance, as soon as the need of their services as Telegraph-Masters ceases. If transferred on the public service, they cease to draw the allowance. A 1st grade Telegraph-Master may be transferred on the public service. On arrival at his new station he becomes a Signaller; he is subordinate to the Telegraph-Master in charge of the new station, who may be of a lower grade both as Telegraph-Master and Signaller. In the new station the transferred Telegraph-Master has to make his way upwards in exactly the same manner as if he were only a senior Signaller and had never been a Telegraph-Master at all; or, if he accepts a lower allowance, he at once becomes a Telegraph-Master of a lower grade, although he has been guilty of no misconduct.

There is no difference among the men appointed in the general and local scales. Thus, in Bombay six general and six local men are to be under tuition at one time, but all 12 pass the same entrance examination; the six attaining most marks at the entrance examination would be nominated for general and the remaining six for local service. If in the final examination the six appointed for local service did better than the six appointed for the general service, the former would not be entitled to the higher rate of pay. To obtain this they would have to pass a technical examination of a most difficult nature, namely, to receive code words and figures at the same rate of speed as the six more fortunate men have to read in ordinary English (*vide* late circular regarding examinations).

A certain proportion of the total number of Signallers are appointed to the good and superior grades. These promotions were formerly given as the result of competitive examinations in the same subjects as those for the final examination of candidates. They are now given to those who really do the most work, or who work under exceptionally difficult circumstances. All Signallers have not, however, the same chances of success; those posted to large offices and to code lines have all the chances, and those posted to small stations, where little or no code work is done, have none, and this through no fault of their own.

The *President*—contd.

I wish to give evidence on the following points:—

(1). European officers to a certain extent are necessary in the Telegraph Department, but the present number is much in excess of all needs of the service.

(2). Natives have not made a mark in the service in the Signalling staff. The service is not popular with Natives, and the majority select a lower rate of pay in order that their services may be confined to certain districts. Native officers—by officers I mean gazetted officers throughout my evidence—would not answer for this service, as it is feared they would not be able to exercise proper control over the large European staffs concentrated in the large telegraphic centres. As an instance, the Native Telegraph-Masters prefer remaining in the smallest offices where they probably have only one or two Signallers under them, or perhaps none at all. By such selection they lose all chance of promotion. This, however, does not act as a deterent to their selecting a life of ease and limited responsibility. Now an officer of this Department is liable to sudden and distant transfers. His time is busily employed in carrying on and controlling the largest operations of the service, and he is called upon to carry telegraph lines through unknown and unexplored regions. In doing this he has often to undergo great personal inconvenience, hazard, and risk, and to adopt a mode of life very different from that ordinarily adopted by him. These are conditions of service very much more unfavorable than that experienced in a large telegraph office. The Natives, however, prefer avoiding the life of a busy office, and it is safe to infer that the more arduous work of an officer would be equally distasteful to them. Night duty, and the irregular hours of watches appertaining to all large offices, interfering as they do with the hours for meals, religious observances, and caste prejudices of the Natives, are very distasteful to them, and tend to increase the unpopularity of the service. Politically regarded, it would be advisable to exclude Natives altogether from a knowledge of practical Telegraphy. In the

The *President*—contd.

railways we have large numbers of Native Telegraphists. Although I do not wish to say anything against the loyalty of Natives, still I would point out that they are patriotic, and their patriotism is often directed in very unpleasant lines. Now in case of a reverse during a war, if a portion of a country having wires came into the hands of an enemy, the patriotism of Natives might lead them to work the lines for the enemy. During the Franco-German War the French lines were used by the Germans very much to the advancement of their own schemes and to the confusion of the French. A highly civilised or even a semi-civilised enemy would not fail to take advantage of a telegraph system which came into his possession. In the case of a semi-civilised enemy, perhaps the first thing would be to pull down and destroy the telegraph lines. This would be to our advantage, and the class of Telegraphists in the Railways and Postal Department would not be able to do much; but if a high class Telegraphist threw in his lot with the enemy, the reverse would be the case: the telegraph would be soon restored, the resources of the country in the way of a working staff of Signallers quickly organized, and as efficiently worked as circumstances might permit. Departmentally speaking, Native officers who have not risen from the ranks, even if efficient, could not do much towards improving the service. Telegraphy is a progressive science. Here in India progress is slow, and we have to keep in touch with the telegraph systems in the rest of the world. The European officer goes to Europe at his own expense. After the immediate cause for his going has been fulfilled, he very often spends some time in examining the various telegraph systems of Europe; many have even gone to America and studied the systems in use there. Their knowledge is thus greatly increased, and gradually the Indian Department reaps the benefit of the experience thus gained. The Native officer would have no cause to go to Europe; he would expect to be sent there at the State expense; but even if he went there the result would be very limited, owing to his ignorance of the Continental languages. The Indian and British Telegraphs are in complete touch, and a visit to England alone would be worth very little. The Indian Telegraph is a large and very efficient school for telegraph instruction, and its staff is as efficient as that of any other country; but the Indian officer can only attain to the highest knowledge already in the department. He cannot go beyond this, and if all telegraph officers remained absolutely stationary, the work of the Department would cease to be progressive, and in time would fall very far behind all the other systems. I do not here refer to the purely theoretical portion of the telegraph. A man with a good education and a taste for study can keep in touch with this; but I refer to the practical work of Telegraphy, and the management of large offices; so that the messages can be worked with the greatest speed, accuracy, and economy. These subjects are not to be found in text-books; they cannot be studied from the knowledge of the working of only one system. Like Anatomy, the highest

The *President*—contd.

excellence can only be attained by comparative study of various systems.

Owing to the very effective training available in the Telegraph Department, those Signallers who have been promoted to do the duties of an officer have acquitted themselves to the complete satisfaction of every one. On the 1st April, 1887, there were—

In charge of sub-divisions	...	14
In charge of store depôts (Madras and Bombay)	...	2
Attached to the offices of high officials	...	13

This, it will be seen, is a high percentage of the number who have attained a position to be placed in charge of these responsible duties. The best way that economy can be effected is by the Department availing itself more largely of the valuable aid thus obtainable. At present, however, this is not possible to a great extent, owing to the numerical excess of officers in excess of all needs of the service.

(3). I wish to give evidence that the organization of the signalling staff is in a very unsatisfactory state and gives rise to much dissatisfaction. There are eight rates of pay. That is to say, that eight men of exactly the same service, doing exactly the same work, may be in the enjoyment of eight different salaries. For instance, suppose all of them to be 15 years in the service, then they would be classed and get the following salaries :—

			Rs.
Superior grade,	General scale	...	195
Ditto,	Local scale	...	130
Good grade,	General scale	...	162
Ditto,	Local scale	...	108
Average grade,	General scale	...	130
Ditto,	Local scale	...	87
Indifferent grade,	General scale	...	100
Ditto	Local scale	...	67

The two latter are only punitive grades, and are very seldom used. I wish to say that there are several ways of punishing without having a punitive scale.

The local scale is not popular with Europeans and Eurasians. In fact, the majority of those now in it are in it because they have been placed there by the Direction, and the poor men cannot get out of it. On the other hand, the local scale is largely used by the Native Signallers to avoid transfers to distant places. I am not acquainted with any service in any part of the world organized in this manner, and I can scarcely see the necessity of this in the Telegraph Department; but in this respect I do not consider myself competent to say whether this is the best thing for the Telegraph Department or not. I only wish to point out the anomalous nature of the service.

(4). I wish to give evidence that the old and most useful men of the Department are placed at a very great disadvantage. All increase of pay ceases after 15 years' service, and as men join the service very young, a very large percentage of the men are of the class who cannot get any further increase of salary at the time they most need it. On the 1st of April, 1887, there were in the Department—

Telegraph-Masters of all grades	...	262
Signallers of all grades ...	...	1,016
Sub-Assistant Superintendents	...	51

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The *President*—contd.

It is only the 51 Sub-Assistant Superintendents who are entitled to progressive salaries; the 262 Telegraph-Masters and those of the 1,016 Signallers who have already attained their majority are debarred from all further increase. It is true that the 262 Telegraph-Masters also get an allowance ranging from Rs. 20 to 80 per mensem; but this allowance is of a most precarious nature. It is withheld if the man falls sick or takes privilege leave. He loses it if transferred, on the public service, from one place to another. In his new station he may get no allowance whatever. To make it clear, let us suppose the case of a Telegraph-Master, say, at Akyab, and that out of regard for the needs of the service a Sub-Assistant Superintendent or a higher officer is placed in charge of the office, and the Telegraph-Master is transferred to Bombay. He immediataly loses his allowance, and on arrival at Bombay he works as a Signaller under Telegraph-Masters who may or may not be his juniors. He has again to make his way upwards, not always an easy thing: for being in a new place he has to compete at a disadvantage with men of proved merit. The man is consequently deprived of an income to which his previous service fully entitled him, and he is liable to be placed under men who are his juniors and with whom he must enter into active competition. This allowance, it will be seen, cannot be counted upon as an income. Now in the numerous cases which are annually occurring of this nature the Department gains nothing financially, for as soon as the allowance is lost by one it is given to another. The only loser is the last recipient, a man who has been promoted for proved merit, and the only gainer is a man who has yet to prove his fitness for the post. The discontent which this creates is not inconsiderable, and of the 1,278 Signallers and Telegraph-Masters there cannot be less than one-third who have not reason to complain on this account. Perhaps the persons whose grievance is the greatest are the 262 Telegraph-Masters actually in present enjoyment of the allowance. For they can tell you how many times they have already lost it and how they may at any time lose it again. But this is not all. A man may be enjoying this allowance till he arrives at the period of retirement, when one unlucky transfer undoes him, and, not having time to recover the loss, he retires on a smaller allowance than he otherwise would. I think that a state of things which causes universal dissatisfaction requires amendment. A scheme of progressive salaries might be introduced throughout the Department; this might be easily done without a radical change.

Telegraph-Masters with their allowance draw the following salaries:—

	Superior.	*Good.*
1st grade	275	242
2nd ,, ...	255	222
3rd ,, ...	235	202
4th ,, ...	215	182

The Sub-Assistant Superintendents draw the following salaries:—

1st grade	275 to 350
2nd ,, ...	250 to 275

It will be seen the transition from one grade to the other is easy, continuous, and perfectly

The *President*—contd.

practicable. The proportion can also be fixed. For we have:—

Sub-Assistants, 1st grade	26
,, 2nd grade	25
Telegraph-Masters	262
Signallers	1,016
Total ...	1,329

Percentage to total number, Sub-Assistants, 1st grade	2%
Sub-Assistants, 2nd grade, and Telegraph-Masters	22%
Total ...	24%

A scheme which I think would meet with much favor might be introduced on the following fixed salaries:—

1st grade Sub-Assistant Superintendents, 1% of total number		400
2nd ,, ,,	2%	350
3rd ,, ,,	3%	275
1st grade Telegraph-Masters, 6% of total number,		250
2nd ,, 6% ,, ,,		200
3rd ,, 7% ,, ,,		180

The total percentage would thus be 25% of the total number of Signallers, Telegraph-Masters and Sub-Assistant Superintendents. I do not mean that it should be understood that three Signallers require one Telegraph-Master or higher officer to supervise them; a large number of these officers would be and are employed away from Telegraph offices and are not concerned in the management of Signallers. The maximum pay that a Signaller can get is Rs. 195, and to this only about 9% of the total can hope to attain. The lower grades have to be content with much less, and it is to provide a healthy flow of promotion and to reward the deserving that these proposals have been brought forward.

Another source of discontent and anxiety is the annually recurring signalling test. This has been enhanced from time to time, and the rate of speed which has been fixed during the present year for all men is one which the best can only pass with considerable difficulty. Not only have Telegraph-Masters and Signallers to pass this test before they can be promoted, but they are tested annually to show that they are still able to signal at the prescribed rate. It is the opinion of nearly the whole, if not the whole, of the signalling staff throughout India that the test is unnecessarily severe and beyond the capacity of men of average physique. I consider that it is unreasonable to expect that men of from 40 to 50 years of age should possess the manual dexterity of men fresh in the Department. No consideration is shown for length of service, age or infirmity; all are liable to reduction if they fail by the smallest fraction from the prescribed limit, no matter how good their services may have been and may continue to be. Another source of discontent and anxiety is the liability to frequent transfers, very often to long distances and always with inadequate travelling allowances. To give an instance. A Telegraph-Master or Signaller, with a wife and four children, transferred from Bellary to Calcutta, is only allowed double 2nd class railway fare, which

The *President*—contd.

is only sufficient to cover the railway fares of himself and his wife. The fares for his children and the little luggage he is obliged to take with him he has to meet from his own pocket. This is no unusual case, and the grievance is not a small one.

There are three different divisions in the Telegraph Department, *viz.*, the gazetted officers, the Upper Subordinates, and the Lower subordinates?—Yes.

The gazetted officers are those from the Assistant Superintendents upwards?—Yes.

The Assistant Superintendents are recruited from Cooper's Hill?—Yes.

Are you aware that it is proposed very largely to diminish the strength of the upper establishment?—I was not aware of it. I know that the present recruitment of gazetted officers is limited to two a year.

The upper subordinates are in two grades, called Sub-Assistant Superintendents of the first and second grades, and there is a third branch of the service, called the signalling establishment, and a fourth which is called the lower subordinate service?—Yes; the lower subordinate service consists of Native linemen.

The signalling establishment is the one to which you belong?—Yes.

It is divided into a general and a local branch?—Yes.

And this division was made because it was found that many of the men were unwilling to serve out of a particular circle?—Yes.

If a man volunteered or was selected for general service, it meant that he was liable to be sent to serve in any part of India, not only within the limits of the present operations of the Department, but in any new division which might be formed outside the existing divisions from time to time?—Yes. Men who have elected for general service from the local scale may, however, after a number of years' service on the general scale, apply to be sent back to the same place on the local scale from whence they were taken, but if they do so, they are bound to go back to the same pay.

In order to meet the inconvenience of transfers from one part of India to another to which they are liable, the general scale men receive higher pay than the local scale men?—Yes.

The efficiency of a Signaller depends on the number of words he can telegraph in a minute?—Yes.

And according as a man can telegraph a larger or a less number he is put into the grade of superior, average or indifferent?—Not always. It is one of the most important qualifications no doubt, but he must also undergo a general examination, according to the result of which he is placed into superior, average or indifferent grade.

The rules of pay are governed by two considerations: (1) whether a man elects for local or general service and (2) whether he possesses high qualifications and good character?—Yes.

The *President*—contd.

The local allowances which are paid to Telegraph-Masters are not personal but local?—In one way they are local, *viz.*, that they count towards his pension.

The allowances are given for the charge of training classes, batches of Signallers on duty in the larger offices for special testing duty and technical inspection, and the maintenance of licensed offices?—Yes.

At the same time a man in the Telegraph Department who elects for general service which gives him higher pay is liable to be transferred from an office to which an allowance is attached to an office where there is no allowance?—Yes.

It is the object of the Department to get the most efficient men in the most important offices? Yes.

Can you give us any instances of transfers having been made on other than public grounds? —I cannot. All transfers are ascribed to the interests of the public service unless a man is removed as a punishment. Sometimes he is removed because he has been a certain number of years in a place.

He would be removed probably from an unhealthy to a healthy station?—Yes.

Where no public grounds exist transfers are sometimes made at the request of the man himself?—Yes.

May not a man be removed from a less important telegraph office with a higher allowance attached to it, to a more important one though with a smaller allowance, because it is considered he is the most suitable man for that particular office?—Very often he is transferred to make way for a superior officer.

Would not the superior officer have a right to the place?—When he is removed from his office he very often loses his right and has to make way for a junior.

He may have to be transferred to an office and work under a junior, until a vacancy is found for him?—Yes.

You complain that men are liable to be removed from one part of the country to another but is that not a condition of the general service?—The local scale was introduced long after I joined, and therefore I think that I and others similarly situated ought not to be affected by it.

When you joined the department every Telegraph-Master was liable to be sent to any part of India?—Yes; I have never objected to be sent anywhere; what I object to is the expense to which I was put in being transferred.

You say you are allowed double second class railway fare?—Yes.

Is there any Civil Department of Government which pays for the travelling expenses of a man's children?—I am not prepared to answer that question. It is done in my Department in the case of a sea voyage. I consider that the pay is so small that the travelling allowances should be taken into consideration.

Promotion to the grade of Sub-Assistant is made by selection?—Yes; from the superior, good and average grades of Telegraph-Masters.

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The *President*—contd.

When you were engaged in construction, who was your superior officer?—My Chief Superintendent, and under him the Assistant Superintendents in charge of sub-divisions.

Had some of those officers been educated in India?—One of them had been appointed in India but educated at home. I think he was the last one so appointed.

Since that time the education of officers for the upper grades of the Department has been conducted at Cooper's Hill?—Yes.

Have you anything to say about the promotion of Sub-Assistants?—No.

The highest pay of a Sub-Assistant is Rs. 350?—Yes.

So that in your Department men selected in this country cannot ordinarily obtain a higher salary than that of a first grade Superintendent, which is from Rs. 275 to Rs. 350?—Yes.

Formerly there were Honorary Assistant Superintendents?—There are some now.

It is not a grade to which appointments are often made?—No; and it carries no increase of pay.

When you had charge of a sub-division, did you do the same construction work as an Assistant Superintendent would have done?—Yes; in every respect. I had charge of offices and lines, had to supervise and control them, and submit my reports just as an Assistant Superintendent has.

The Hon'ble Khan Bahadur *Kazi Shahbudin.*

Is it in your opinion necessary to recruit the higher branch of the Service from England?—Not absolutely necessary, but I think that for the sake of the status of the Department and to keep it on a par with other systems throughout the world, it is necessary to bring in properly trained men from home. The training here would be limited. There is a good field for teaching, but it is limited. You learn nothing new, and unless you keep touch with the systems of the time I do not think the Department will improve.

How many vacancies in a year occur on the average in the upper grades?—Two or three.

And if they reduce the higher appointments the vacancies will be still fewer?—Yes.

Is that enough for the purpose of keeping touch with the newest discoveries in Europe in such a large country as India?—Quite. Very few men are necessary to keep up training classes, which are only held by one man; and all the training classes in India could be taught by very few. Also the English officers take furlough to Europe and utilize their time at home in looking up the latest improvements.

Are there any institutions in India for teaching Telegraphy?—Free schools are maintained by the Department. There is one here in Bombay.

Attached to the Telegraph Office or to a public institution?—It is attached to my office and is managed by the Department. The most important of these schools are the Lawrence Asylum at Ootacamund and the Free School at Calcutta: mainly these are intended for training Signallers, not for the higher branches.

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

Not for teaching construction?—No.

The *President.*

The Department maintains a special master at the Lawrence Asylum at Ootacamund?—Yes; the present man is a 1st grade Sub-Assistant.

The Hon. Khan Bahadur *Kazi Shahbuddin.*

In what grades do Europeans and Eurasians predominate?—Superintendents, Assistants, and Sub-Assistants are Europeans; Sub-Assistant Superintendents are Europeans, Eurasians, and Natives who are qualified.

Can you account for the almost entire absence of Natives from the grades of Telegraph-Masters and General Signallers?—Natives have not made their mark in the Department. They however predominate in the local scale. They are disinclined to night watches and transfers. Irregularity of watches in large Telegraph centres is another objection; it interferes with their meals and caste observances. By irregularity of watches I mean that one day you are on the watch morning and evening and another day you are on during the middle of the day. I do not know of any other reason.

Are you aware that at the railway stations most of the Signallers are Natives?—Yes.

How do they keep their night watches?—They sleep and they are woke up when they are wanted for duty; but that would not do for us. I have been connected with railways myself; that is, I have worked on lines that are run by railways. I have known the Native Signallers go to sleep and be woke up by porters and other servants when it was necessary for them to attend to their work.

Is this distaste for night watching common to all classes of Natives?—With very few exceptions, all whom I know in our Department are very much against it.

Have you heard of any cases of dismissals connected with this aversion to night watches? The Department would not dismiss men for that; they would be punished for lax duty. The men do not like the service on this account.

You know that on the Bombay railways Engine Drivers are mostly Natives?—Yes.

And that some of them work for sixteen hours a day and perform night duty as well?—Yes.

There are more Native Guards than Drivers?—Yes.

How is it that they do that kind of work and do not take to your Department?—They do it, but I believe it is much against their will, and they will avoid it if they can.

Is not this paucity of Natives in the Department largely owing to the fact that the heads of the Department are of a different class and race?—Yes; I dare say the officer has much to do with it. It takes a long time for them to overcome their prejudices against us.

Is the paucity of Natives in the Department due to the reluctance of those who make the appointments to appoint Natives?—I do not

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

think so. There is an examination for admission which is open to all.

You do not admit anybody into the Department unless he passes an educational test?—Yes.

Are the time and place these examinations advertised in the papers?—They are at times. I know it has been done very lately.

How often have you seen such advertisements within the last ten years?—They were advertised last year.

Are they advertised on every occasion that you want candidates?—I cannot say.

The *President.*

You do not admit any person to these examinations who has not learned the system?—Oh yes; all are admitted. The examination is a test of general education.

Is there any reason why on every occasion you require a certain number of candidates the examination should not be publicly advertised?—I see no reason why it should not be.

Mr. *Nulkar.*

Are these training classes open to Natives?—Yes; the one here is attended by Natives.

The one at Ootacamund also?—I do not know.

Why was Ootacamund chosen for this purpose?—Because it is a healthy spot.

Mr. *Nulkar*—contd.

And because you have Europeans and Eurasians there?—Yes; I do not think there is any prohibition against Natives entering the class.

It affords a recruiting ground for Europeans and Eurasians?—It is a training school in connection with the Orphanage.

And it is principally intended for Europeans and Eurasians?—Yes; there are other schools to which Natives can resort.

Are you acquainted with the Calcutta class?—No.

Can you say whether it is open to Natives or not?—Yes; a number of Natives in the Department have been trained there. The Bengali element, which predominates among the Signallers, were all trained there.

Are many Europeans and Eurasians trained in the class here?—There are some, but there are as many Natives.

Do many European and Eurasian lads compete for Signallers' appointments here?—A sufficient number to supply the necessities of the Department do.

Is the number of European and Eurasian candidates fairly large?—There are more candidates than appointments.

Do Natives or Europeans and Eurasians predominate among the candidates?—Europeans and Eurasians predominate.

Witness No. X.—23*rd July*, 1887.

Examination of T. H. Keely, Esq., Telegraph-Master.

T. H. Keely, Esq.

The *President.*

I entered the Department in 1873 from the Ootacumund school. Until 1882, I was a Signaller, and then I was given charge of a training class in Bombay. For about eighteen months I held charge of the Walagaum Office. For eight or ten months I was in the Bombay Central Office, and since October last I have had charge of the Deolali Office.

The Hon. Khan Bahadur *Kazi Shahbudin.*

Do you agree with the views of the last witness as to the pay, promotion, and prospects of employés in the Department?—I think the subordinates in the Department are not so well paid as the subordinates in other Government departments. I refer to Signallers, Telegraph-Masters and even Sub-Assistant Superintendents.

What other Departments do you refer to?—Any other. Take the Postal Department. A subordinate in the Postal Department can rise to Rs. 400 and Rs. 500, which is not the case with us.

Would subordinates in your Department have the techical knowledge necessary for the higher appointments?—The Department is a technical one, and the subordinates in it must have had a technical training, which is not the case with the Postal Department.

The Hon. Khan Bahadur *Kazi Shahbudin*—contd.

The *President.*

What pay did you commence upon?—On Rs. 100 as an "Average" Signaller.

What pay does a postal man get?—None.

How long is a man generally a probationer?—He is allowed nine months to qualify.

How many boys are there in the Lawrence Asylum Telegraph Class?—When I was in the class there were twenty-two.

Do any of these boys go with the Army Signalling Branch?—Very few from the Telegraph class, but boys enlist from the school into the army.

Have you done any construction work?—I had charge of a construction party between Tarreghar and Tetalsur.

Have you anything to say about the constitution of the Department?—No.

Witness No. XI.—23*rd July*, 1887.

Examination of J. Quinn, Esq., Telegraph-Master.

J. Quinn, Esq.

The *President.*

I entered the Department in 1865. I was not specially trained for the Department. I entered by competition.

The *President*—contd.

Did any Natives compete with you?—No. I was examined in the Madras Presidency. I received my technical training in the training

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The *President*—contd.

class there. It was not a recognized class. The men were told to go and learn their duties there. There was no one to teach them; they had to learn as best they could in the offices.

Is that the case in most divisions in India?—No. There have been regular classes established since my appointment.

What do you wish to say about the Department?—The Telegraph-Masters consider it a grievance that the Sub-Assistant grade, which is open to the superior lower grade, is closed to the good and average grades, although in the good grade there may be men who are in all respects equal to and are perhaps better than those in the superior grade, though they may have failed to enter it by one or two marks. Such men have nothing to look forward to after long years of service. Then as regards Telegraph-Masters' allowances. No doubt these allowances are put under the head of local allowances and are attached to the office, but if they are to be counted towards pension I see no advantage in being a Telegraph-Master at all. If Telegraph-Masters' allowances are to count for pension, there ought to be some means by which such officers may get these allowances; otherwise they gain no advantage from them at all. A man of 25 years' service is transfered from one division to another. The moment he goes into a new division where there are no vacancies for him, he has to wait, and the probabilities are that he may have to do so for the rest of his service until he has completed his full time for pension. Only the pay you draw during the last five years of your service is counted for pension. I protest against the practice of making transfers without first seeing whether or not there is an appointment of equal status for the man transferred.

Anything else?—Yes. About the examinations which are held annually. When we are first appointed to the Department, we are expected to pass an educational as well as a technical examination. The technical examination includes a very rigid examination in both signalling and receiving at the rate of twenty words a minute. This examination is annually repeated, and I wish to point out that it is hardly possible that a man of twenty-five years' service can compete with a youth of exceptional attainments. Since 1885 or 1886 the severity of the examination has been very much enhanced. We are asked to pass in the code, that is, in words you could not articulate, and in figures. The severity of these examinations can be judged from the fact that 75 per cent. have failed in them. The Department has been in existence a good many years and the traffic has always been of the same kind and nature as that of the present day. If there was no necessity for such severe tests ten or fifteen years ago, I see no reason for them at the present time.

Has not the business of the Department enormously increased, and do you not send ten or twenty times the messages you used to do?—Yes.

And therefore do you not require more efficiency?—The work has only increased in quantity, not in difficulty.

The *President*—contd.

Surely when it increases in quantity, it increases in difficulty?—I do not say that the examination, if it secures efficiency, should be abolished, I only say that tests are being introduced which are not exactly required.

Are not these allowances given for extra trouble?—Yes.

You could not make the allowances travel from an office where there was a great deal of work or a particular kind of work to an office where that work did not exist?—In what way are we to realize these pensions when the time arrives?

Mr. *Trower.*

Is it not the case that a Telegraph-Master who has had fifteen years' service and consecutive charge of an office for two years if he is transferred, has a claim on the first vacancy?—Yes.

A man is not liable to be transferred for five years if he conducts himself properly?—No.

The *President.*

How is it that there are not more Natives among the Signallers?—I believe the working hours of the Department do not suit the convenience of Natives. They do not fit in with their caste observances. I have had Natives under me, and it was their universal complaint that they had to go through certain ablutions before meals and that their duties at telegraph offices interfered with these observances. We have had to incur a great deal of extra work to suit their convenience.

On whom did this extra work fall?—On themselves. If a man wishes to enjoy a certain privilege he must sacrifice himself to a certain extent, so they had to make arrangements with other Signallers to take their turn on these particular occasions.

And they would take the other Signallers' turn and for a longer time?—Yes.

The Hon'ble Khan Bahadur *Kazi Shahbudin.*

Is this the case with Parsis and Mahomedans and Native Jews?—I do not think so. I have only experience of Hindús.

Particularly Brahmans?—Yes.

Do you know any Muhammadan Signaller?—I have only known of one.

How do you recruit the subordinate grades of the service?—By advertisements or some other means the public are informed that candidates are required. I have on two or three occasions seen such advertisements in the Bombay newspapers. I think in the *Bombay Times;* but only of late years.

You take raw young men who have passed a certain educational examination and place them in a training class?—Yes.

And when they pass out of the training class they are drafted into the Department?—Yes.

The bulk of your later employés were trained in the Ootacamund school?—Not the bulk of them.

Have you engaged for general service?—Yes. The standing rule regarding transfers is

The Hon'ble Khan Bahadur, *Kazi Shahbudin*—contd.

that every man in a division is eligible for a transfer every five years. In my individual case I have been transferred no less then twenty-six times in twenty-three years' service at my own cost. These transfers are as a rule a great source of expense to us.

You chose the general service?—Yes; if the rule had been adhered to I should not have been so often transferred.

Is it a service rule?—Yes.

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

Have you brought the fact of which you complain to the notice of the heads of the Department?—I did so once, and on that occasion although I mentioned several reasons for not being transferred the only one which saved me from transfer was the grade I held at the time.

The *President.*

Have you anything further to say?—No.

WITNESS No. XII.—22*nd July*, 1887.

Examination of JOSEPH BOCARRO, ESQ., Representative of an East Indian Association.

J. Bocarro, Esq.

The *President.*

What have the Association to say on the subject of the present enquiry?—They object to the rule which requires that the annual examination in signalling should be passed by Signallers of over fifteen years' standing under pain of reduction, as after fifteen years' service in the Department working both night and day, it seems hard to call upon Signallers to conform to regulations which were not in existence when they entered the Department.

If you wanted a certain degree of efficiency for the public service in the Telegraph Department, what would you do?—Officers certainly need not be reduced. Next, the Association submit that Telegraph-Masters in the "good" grade should be eligible for Sub-Assistantships in the same way as Telegraph-Masters in the "superior" grade. It is a well-known fact that many of the men in the "good" grade are of the same stamp as the men in the "superior" grade. There are a limited number of appointments in the first grade, and until a vacancy occurs they cannot get promoted to it. Vacancies in the Sub-Assistants' grade would be more frequent if the number of officers drafted from Cooper's Hill were reduced. As a natural consequence, all the lower grades would benefit by the opening of the upper. We wish also to lay before the committee that in a department like this, through which a very large amount of important official information is communicated, it is a matter of vital importance that the employés should be exclusively British subjects.

The *President*—(contd.)

Are there any persons in the Department who are not British subjects?—I believe there are. I think, if inquiry were made, there would be found to be some in the Bombay offices.

What subjects?—They may be Goanese, though I don't wish to single them out.

Are there any others?—I am not aware of any. There may be in other parts of India.

Have you anything further to add?—Nothing more.

WITNESS No. XIII.—23*rd July*, 1887.

Examination of M. R. TROWER, ESQ., Chief Superintendent, Bombay Division.

M. R. Trower, Esq.

The *President.*

When did you join the Department—In 1868. I obtained my appointment by limited competition. I received my technical education at Southampton under Mr. Preece. When I first came out to this country I was employed in Rájputána and then in Calcutta and in the Madras Presidency. Later, I was employed in Assam, and then I came here.

Had you held the post of Chief Superintendent before you came to Bombay?—I have acted in that capacity in Bengal.

What is the system of appointing Signallers?—They are appointed according to the number of vacancies. Applications are received and are recorded on a list kept for the purpose, and when there is a sufficient number of vacancies all applicants are informed that the examination will be held on a particular date and are requested to attend.

Are these applications sent in irrespectively of any notice being issued?—A notice is generally posted up at the Telegraph Office informing candidates.

The *President*—(continued.)

Are all persons who have applied admitted to the examination?—Yes.

Quite irrespectively of caste or creed?—Yes.

Do Asiatics, according to your experience, apply largely for admission to the Department? A smaller number of Asiatic Natives apply than others, and, as a rule, I think they are not so able to pass the examination.

To what classes do the better educated who apply belong?—Europeans and Eurasians.

Had you any opportunity of seeing how Signallers were recruited in Bengal?—It was done in exactly the same way as here.

Were there larger numbers of Native or of European and Eurasian applicants in Bengal?—I think in Bengal the number of Native candidates predominated.

Were they more successful there than Europeans and Eurasians?—Generally, I think they were (hands in list of candidates and a copy of the rules). That is the list of the candidates who are to be examined on the 26th; the other is a

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The *President*—condt.

list of the candidates who passed at the previous examination.

Is there any class at Allahabad for the training of Signallers?—I do not know for certain.

Or in the Panjáb?—I cannot say.

Do you see any reason why Sub-Assistant Superintendents who have proved themselves competent should not be made Assistant Superintendents?—At present, officers in the superior grade have to pass a severe examination in England, which necessitates a good general training, and they have considerable responsibilities thrown on them; and I think, as a rule, they have better general education. They have also dealings with other departments. For these reasons I think it would be better to recruit them in England.

Why should you not give promotion to an exceptionally good Sub-Assistant?—In very rare cases promotion might be given. We have three Honorary Assistant Superintendents.

The post of Honorary Assistant Superintendent is a mere barren honor; it carries no pay and confers merely a higher status?—That is all. I think it is desirable to point out that the block in promotion amongst officers of the superior grade is such and the chances of promotion are so hopeless, that unless the Government take some drastic measures, it will be very difficult to obtain recruits from England.

What is the cause of the block?—It is owing to so many officers having been brought out within the years 1868 and 1872.

How was it that so many officers were brought out then?—In 1868 the Department was underhanded, and it was necessary to bring out a certain number to make up the deficiency.

A great deal of new work was opened up?—Yes; and it was not anticipated that there would be so few vacancies among the higher officers. The number of superior appointments then was so many as 130. The sanctioned scale used to to be eigthy Assistant Superintendents. At present there are only fifty.

In regard to pensions you are under the more favorable rules?—Yes.

The Hon'ble Khan Bahadur *Kazi Shahbudin.*

The subordinate ranks of the Department from Telegraph-Masters downwards are recruited in this country?—Yes.

Does this recruitment take place at particular centres?—No; all over India.

Do you admit candidates at Lahore?—Yes; applicants are taken on from all parts of India.

And they receive special training at particular places only?—If the candidates are not numerous, they may receive instruction at the local telegraph offices where they are selected. If they are numerous, they are trained at particular centres.

Do any of the young men who pass in Calcutta or Bombay go to Madras?—If they are on the general scale they can be sent all over India; if on the local scale, they are confined to the presidency in which they are appointed.

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

What area does Bengal include for telegraph purposes? It extends to Agra.

How do you reconcile the fact of Natives being more successful than Europeans and Eurasians in Bengal with the fact of there being so few Natives in the Bombay local branch compared to Europeans and Eurasians in that branch?—Bengal supplies a larger number of Native applicants than any other presidency.

There are more prizes for Natives in the Bengal Circle?—Yes.

Suppose in a batch of twelve qualified Signallers who pass out of the training class, ten are Europeans and Eurasians and two are Natives all belonging to the local scale, would they get the same pay?—Exactly the same.

Natives and Eurasians in the "average" class in one scale would get the same pay?—Yes

How is it that these house-rent and locality allowances are not mentioned in the Departmental rules?—The rules apply to certain localities and not to India.

Do they apply to Bombay for instance?—Yes.

These allowances are not paid to Natives who enter the Department on the same scale as Europeans and Eurasians to whom they are paid?—No.

Even when a Native is transferred from Bombay to another station in the circle, Kurrachee for instance, even though they are paid to Europeans and Eurasians in Kurrachee?—No.

Does the same distinction apply to Telegraph-Masters?—Yes; as regards the locality allowance, not as regards pay.

Has any rule or order been issued by Government prohibiting the employment of Natives on particular posts or stations in the Department?—I am not aware of any.

The *President.*

This house allowance is not granted to any officer for whom quarters are provided?—No.

Telegraph-Masters ordinarily have houses provided for them?—Yes.

A Native Telegraph-Master lives in the Telegraph house?—Yes.

It is only in localities where no such provision is made that the Signalling establishment get these allowances?—Yes.

How is it that these allowances are only given to Signallers in the Bombay Circle?—Because the Bombay Circle is considered more expensive than the others.

It is only in special localities, such as Bombay, Burmah, Beluchistan, Afghanistan, and on certain lines which are on the hills, or in one or two out-of-the-way places that these allowances are given?—Yes.

And the only Natives who are debarred from these allowances are the Natives of the particular locality?—Yes.

WITNESS No. XIV.—*23rd July*, 1887.

RUGGUNATH NARAYAN, Signaller.

The *President.*

I am a Bráhman by caste. I entered the Bombay office ten months ago, after competition.

How did you come to hear that an examination was to be held; was it advertised in the papers?—I do not recollect. I was told an examination was to be held. A notice was affixed to the wall of the central office.

Were there any other Natives who competed with you?—There were about six.

How many candidates were there?—Altogether eighteen. The others were Eurasians or Christians. There was no Parsi.

How many Natives succeeded in passing?—Only myself.

Were the marks published?—We were only informed of the result officially.

And then you joined the class?—Yes.

What pay did you get?—Rs. 27, out of which Rs. 3 were deducted to go to the security fund.

Is that the pay ordinarily given on first joining?—In the local scale, yes.

You chose the local scale?—Yes.

If you had chosen the general scale, you would have got higher pay?—Yes; Rs. 40, and Rs. 8 would have been deducted; one-fifth of the pay is deducted until a certain amount is made up.

What point particularly do you wish to be examined about?—I wish to draw attention to the fact that Natives are disallowed the special locality and house-rent allowances.

The *President*—contd.

In certain large stations house allowance is granted to Europeans and Eurasians?—Yes.

Is that when there is a want of house accommodation for them?—Yes. I wish to say that Natives also have to pay heavy rents here. I have to pay Rs. 7 out of my Rs. 24 for house-rent.

Do Europeans and Eurasians in Bombay get these special allowances?—They do.

The Hon. Khan Bahadur *Kazi Shahbudin.*

What is the special locality allowance?—It is given on account of dearness of provisions in certain stations.

Before you entered the Telegraph Department, what had you been?—I had been a railway servant.

Where were you educated?—At the Sholapur High School up to the 6th standard. I was examined in algebra as far as simple equations, decimal and vulgar fractions, arithmetic up to the rule of three, square root, cube root, dictation, an essay, geography of India and England.

Who examined you?—Mr. Maclean, Superintendent in charge of the Telegraph Department.

How many Europeans and Eurasians passed out of the twelve?—Seven.

Were you examined on paper?—Yes.

Were the questions the same for all?—Yes.

The *President.*

Have you anything further to say?—No.

Sittings at Poona

WITNESS No. XV.—*27th July*, 1887.

Examination of W. H. JOHNSON, ESQ., Telegraph-Master of the 4th grade.

W. H. Johnson, Esq.

The Hon'ble Khan Bahadur *Kazi Shahbudin.*

I entered the service on the 1st December, 1866, as a probationer, on Rs. 20 per mensem. I was then 12 years and 8 months of age. I have been educated at regimental schools until I was ten years old. I passed an examination as an entrance test.

The witness read the following note.:—

I, William Henry Johnson, a Telegraph-Master of the Government Telegraph Department, and at present in charge of the Military Training class at Poona, have been deputed by the signalling establishment at Poona to place respectfully before this Commission the grievances which are generally and severally felt by the subordinate branch of my Department.

The grievances which we have suffered for many years and which are felt more at the present time, owing to the change in our condition in life, compels us to solicit a favourable hearing at your hands

The Hon'b Khan Bahadur *Kazi Shahbudin.*

—*contd.*

Tranfers.—I would first bring to your notice the frequent and distant transfers to which we have to submit and which frequently put us to great loss, and not unfrequently involve us in debt.

As instances, I would mention cases of transfers from Bombay to Calcutta, Bombay to Burma, stations on the Malabar coast, to Quetta, and *vice versâ.*

One unfortunate case has ended with the most disastrous results to the individual concerned.

This person, who had a wife and six children, was obliged to be constantly moving about with his office, short distances it is true; but the allowances he obtained both for journeys by road and rail were quite inadequate to the cost of moving such a large family; and when he was obliged to leave his family behind him, he was forced to employ an additional number of

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The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

servants and to provide for the separate maintenance of himself and family. The result of this was that the man got hopelessly into debt and was removed from the Department in disgrace, with a loss after over 23 years' service of the pension to which he was entitled.

Another cause of complaint is, that when a man with a family is transferred to a distance, he is obliged to break up house, sell off his kit at a great loss, and on arrival at his destination to set up house again at great expense, and that though he is liable to further transfer at any moment.

I would respectfully point out that the present system of allowing us only a double 2nd class fare for railway journeys is very unsatisfactory. We do not wish to make our traveling allowances a source of gain or profit. All that we ask for is the same recognition as is given to other departments under Government, such as the Ordnance, Barrack, and, I believe, certain grades of the Public Works Department. These men travel by railway warrants, both for themselves and families, and we, who are somewhat similarly situated, ask for no more. It would scarcely be fair to compare our Department with other civil departments under Local Governments. In departments such as the Postal Department transfers are generally confined to the presidency, whereas in our Department, we are liable to be sent to any distance or place, and should married men leave their wives and families behind, it involves the cost of two establishments, with the prospect of a lengthy separation and its attendant evils.

Leave rules.—I would now speak of our leave rules. Hitherto we have been allowed ten days "casual" or "informal" leave, but this has now been reduced to three days; this ruling trenches on our privilege leave. For instance *A* falls sick and does not recover in three days, he must either go on half pay or convert the period into privllege leave. Another hardship we suffer from is that the privilege leave is restricted to certain periods of the year, and even then it is optional with the Chief Superintendent whether he allows it or not unless a man can produce a medical certificate.

Considering the heavy night and day duty performed by us throughout the year, without the enjoyment of a single Government holiday, which almost every Government officer enjoys, it is no wonder if subordinates fall sick. Yet no concession is granted them, nor is one day's absence excused unless accounted for by a medical certificate.

We pray, therefore, that the old ruling granting us ten days instead of three, be restored to us; the more so as we feel that we are more heavily worked than any other Government department.

We work for 56 hours a week, or an average of 8 hours daily throughout the year, without a single day's intermission.

In other Government offices the duties rarely exceed seven hours daily, excluding Saturday, a half holiday, and the whole of Sunday, making

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

in all hours 38½ against our 56. They are allowed, moreover, all the holidays sanctioned and recognised by Government in addition to the occasional informal leave up to ten days. In many cases they are also allowed handsome overtime allowances for any extra duty they may perform. We have to go through distressing night watches, and to exercise great patience and despatch in our work, which has proved a great strain on many a man's constitution, and in some cases has almost permanently incapacitated him.

Accommodation.—We feel that the allotment of accommodation to the Telegraph subordinates is very inadequate.

A Telegraph-Master in charge is entitled to two units, or space equal to 400 superficial feet.

A Telegraph-Master *not* in charge, to half that amount of room, and a Signaller to one-fourth. It is extremely hard on men coming from distant stations that they have not quarters to go into, and are obliged to put up in hotels, which tells severely on their already overtaxed resources. We would therefore suggest that Government be asked to provide us with public quarters, and that rent at the same rate as that charged to the Ordnance and Barrack Departments be deducted from our salaries.

A Provident Fund.—As previously stated, owing to frequent transfers and the heavy expenses and losses consequent thereon, a very large percentage of subordinates are unable to make any provision against casualties, the result being that many families have been left unprovided for, and in some instances far from their home and friends, and had to depend on public charity, which is not in accordance with Government rulings.

We would therefore suggest that, on the same lines as Railways, Post and other Government Offices, the Department should create a Provident Fund, making contributions compulsory up to a certain percentage. In order to place this fund on a firm basis, the means are already available in a very large sum which is now at the credit of the "Fine Fund," and which is actually our own money temporarily withheld from us, and may be employed to our own advantage.

Post and Telegraph combined offices.—The practice of removing Telegraph-Masters to make room for Post-Masters to work both post and telegraphs, is another grievance, as we lose by this arrangement charge of offices and the allowances attached thereto.

We may fairly ask that we be permitted also to study up the Postal rules (which is simply official routine and requires no special scientific training), with the object of our obtaining charge of post-offices and the better paid appointments in that department.

As an instance that we are able to do Postal work, I may mention the transfer of Mr. Shridhar Narayan, a Signaller of this Department, to the Postal Department.

Promotions.—We feel that a certain number of the higher grades should be thrown open to

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

the subordinate establishment, and that the grades of Sub-Assistant Superintendents should be recruited from the "good" as well as the "superior" grades, and that the present numbers in that grade be largely increased.

Examinations.—We would also point out that the annual signalling test is much too severe, and that men with over 15 years' service ought to be exempted from the test; as, from experience, we find that men advanced in age are not able to hold their own with younger men, it being a physical impossibility for them to do so, but they are still quite efficient for the requirements of the Department.

The *President.*

We have a general and local service, the general service is paid higher than the local. Even a local service man is liable to transfer within the limits of the circle.

We do not complain so much of transfers as of the insufficiency of the allowances made for travelling.

We wish to be placed on the same footing as the military services in respect of travelling allowances; we are willing to go anywhere. More knowledge is required of a Signaller who aspires to the higher grades of this Department than is required of an officer in the Postal Department. He must know something of electricity and magnetism and other subjects. Telegraph-Masters are appointed from the good and superior and not from the average grades of Signallers, so that a man must have a superior education to obtain these appointments.

European Signallers are in a somewhat better position than Natives in some places, as they are allowed house allowance, they are also granted special locality allowances in places where provisions are dear.

I have met Native Signallers during my service; they do their work very well indeed. They do their share of night work; they seem to dislike it very much; they cannot stand much of it; the Brahmans feel it especially, as they cannot take

The *President*—contd.

their meals at any hour. I have seen no instance in which a Native has shirked night work. There are two Native Signallers in the Poona Office, and one European and one Eurasian, besides four military Signallers.

I account for the paucity of Natives in the signalling staff by reason of their dislike to the hard work of the Department and the small prospects.

Mr. *Nulkar.*

I have been transferred sixteen times in seven years. Eight transfers were due to the office being closed from time to time. I am referring to transfers from Matheran to Poona, which could not be avoided, and are now mentioned simply to prove additional personal expense. I joined first at Neemuch. I was there to the best of my recollection from 1866 to 1869, when I was transferred to Mandisar, and in the same year to Indore. From Indore I was transferred to Pintlam in 1870, and in 1871 I was sent back to Indore. In 1874 I was transferred to Bombay, and in 1876 from Bombay to Ahmedabad, I was then 22 years of age. In the same year I was sent to Broach on special duty for a temporary purpose; the bridge broke and we had to establish a bank-office. I was there for a few days and then went back to Ahmedabad. In 1877 I was retransferred to Broach, and in the same year from Broach to Bombay at my own request; in 1878 I was transferred to Poona on account of ill-health; from 1880 to 1884 I have been for four years sent periodically to Matheran for eight months in the year. I married in 1878. In 1881 I was sent to Ahmednagar for three months, and of in 1885 I was transferred to Mahableshwar for eight months, and this year I was again sent to Mahableshwar on special duty. I have not been transferred out of the division since I joined it from Central India. I never remonstrated against my transfers, nor did I at any time suggest that another officer should be sent.

We do not assert the transfers were unnecessary, nor do I assert this in my own case. All we ask for is such allowances as may cover the travelling expenses of ourselves, our wives and children. I have nothing more to say.

WITNESS No. XVI.—27*th July*, 1887.

Examination of C. O'BRIEN, ESQ., Telegraph-Master, 4th grade.

The *President.*

I entered the Department in 1866, by competition. I was then 15 years of age. I was educated in regimental schools.

I entered the Telegraph Department in 1866. The branch of the service I belong to, *viz.*, the signalling branch, is far from being attractive, principally owing to the meagre emoluments, combined with the very slow prospects of advancement.

This branch of the service deserves more liberal treatment, considering the arduous duties the members have to perform day and night, and that without the enjoyment of any of the

The *President*—contd.

many privileges enjoyed by other Government departments. General discontent prevails at the frequent transfers with the pecuniary losses members of this establishment have to submit to.

With reference to the question of transfers, I would point out that during the twenty-one years I have been in the service I have been shifted no fewer than twenty-eight times, and another lengthy transfer is at present pending over me, *viz.*, from Bombay to the Ganjam Division. Another source of discontent is the annual examination in signalling. I would urge that Tele-

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The *President*—contd.

graph-Masters and Signallers who have served fifteen years and upwards ought to be exempted from this test, for operators with fifteen years' service and upwards have their capacity for the tests introduced by new regulations impaired by age and long service. To make the signalling branch popular and progressive, promotions ought to be made as in other departments — *i.e.*, by seniority, a system that would afford every man an opportunity of reaching the higher positions of the upper subordinate grade, *i.e.*, the Sub-Assistant Superintendent grade, the members of which are recruited from the signalling staff. To meet this no important change is necessary except that a reasonable number of appointments in the general branch would have to be thrown open for the members of the Sub-Assistant Superintendent branch, in which branch there are men with recognized abilities of efficiency. There are several other matters of equal importance as those already enumerated which are felt and are the cause of universal discontent, *viz.*, leave rules, telegraph-postal combined offices, the opening of the upper grades, accomodation, traveling and house allowances, all of which allowances, I regret to mention, are very inadequately allotted, and therefore require revision. Last, but not least, is the want of a Provident Fund.

The *President*—contd.

There are Telegraph-Masters in the Bombay Division who have not completed 15 years' service in the Department, and there are such instances throughout India. It is impossible for a man who has been long in the Department to signal so rapidly as a younger man. My sight has been impaired by night work. I have worked with Native Signallers. Those whom I have worked with made no complaint about night work, they are as efficient for that work as Europeans. I pay Rs. 15 rent monthly and water taxes.

I have at present the good fortune to have secured quarters in public buildings, Military Sappers lines, for which I have paid Rs. 25 or 30. The allowance made to a Telegraph-Master is, in the Mufassil Rs. 7-8-0 and to Signallers Rs. 5; in Bombay Rs. 5 and Rs. 10 respectively. I had to pay Rs. 25 a month in Bombay for a single room. That was in the Sassoon Buildings.

WITNESS No. XVII.—27*th February*, 1887.

Hari Anand Baput.

Examination of HARI ANAND BAPUT, Signaller.

I am a Brahman. I entered the Telegraph Department in Belgaum in 1879. I was not subjected to any competitive examination, as I was the only candidate; perhaps it was not then generally known that Natives would be admitted to the Department. I was subjected to an examination though I had passed the Matriculation Examination. I began with a salary of Rs. 27 per mensem, and I now receive Rs. 60.

I wish to speak on two points—that Native Signallers do not get house-rent nor quarters nor special locality allowance as Europeans and Eurasians on both local and general scales do. I think Natives should also get these allowances, being subject to the same inconveniences as others. I am a local Signaller and have been transferred ten times in seven years. Local Signallers should, I think, not be liable to any transfer, and general Signallers should not be asked to serve outside Presidency.

That is all I have to say. A Native of Madras on the general staff coming to Poona would get the locality allowance but not the house-rent. I pay Rs. 5 rent and municipal taxes 8 annas monthly. European Signallers pay much higher rent and taxes, but they generally get more pay. Natives, whose means are smaller, and who have to support helpless relatives, have to look out for cheap houses, sometimes, it may be, very far from the office, and thus they suffer personal inconvenience. I myself live two miles away from the office.

WITNESS No. XVIII.—27*th July*, 1887.

A. Hullah, Esq.

Examination of ARTHUR HULLAH, ESQ., Superintendent, 5th grade.

The *President*.

When did you enter the Department?—In February, 1869, having been appointed by the Secretary of State after competition. I was trained at the Hurtley Institute, Southampton, and in the School of Mines in London.

I have served in Bengal, the North-Western Provinces, the Panjáb, Sind, Central India, the Central Provinces, Biluchistan, and Bombay. I am now in charge of the Puna sub-division.

I am engaged in conducting an examination for the admission of candidates to the Telegraph class at Bombay. This examination is being carried on contemporaneously with an examination in Bombay. There are at Poona 18 candidates, of whom 14 are Natives of pure Asiatic descent and four are of mixed descent. One of the tests is to write 200 words from dictation,

The *President*—contd.

and mistakes in excess of four disqualify. Nine have already disqualified themselves by failure in this subject. I have been informed from Bombay that only 11 out of 60 have passed at that examination centre.

I think that efficiency as well as seniority must be taken into consideration in promotions to the grade of Telegraph-Master. A man may be a very excellent Signaller and yet quite unfit to take charge of an office where he would have a number of subordinates.

In my opinion the tendency at present is to put too high a value on a man's general education.

My experience of Native Signallers is very limited, as my principal service was in the Panjáb, where Native Signallers are few. Speaking

The *President*—contd.

generally, a good Native Signaller is as efficient as a European or Eurasian in manipulation. It would be exceptional if one of such Natives as we obtain here where found competent to take charge of one of the large offices. We have at present some European soldier Signallers. I doubt whether it would answer to put a Native in charge of an office in which such Signallers were.

The Hon'ble Khan Bahadur *Kazi Shahbudin.*

I think men cannot be so well educated in India for the higher grade as in England ; there are not the same opportunities for practical instruction. There are no large telegraph workshops where instruments, and cables, &c., are manufactured. Instruments are repaired in this country.

I think in exceptional cases promotion might be allowed from the Sub-Assistant grade to the superior grade. That grade should be increased in numbers. I do not think it would be n[illegible] to bring into that grade men of h[illegible] education. You would be surprised at the number of Signallers who are self-educated, especially in telegraphy, and who endeavour to make themselves acquainted with the progress in the art, and improvements in instruments. I think increase in the Sub-Assistant grade would be beneficial, in that it would give Signallers and Telegraph-Masters a stimulus which is now badly wanted.

The Hon'ble Khan Bahadur *Kazi Shahbudin*—contd.

Transfers are not, I think, made more frequently than the exigencies of the service require ; but I feel strongly that transfer and punishment are to a married man interchangeable terms ; and I should be glad to see more liberal allowances to compensate for the loss entailed by transfers.

The upper grades of the Department have reason to complain first of the block in promotion, and secondly, of the absence of the presidency allowances which are granted to officers of the Public Works Department. The officers of the Public Works Department, if attached to the Telegraph Department [illegible] allowances, while [illegible] draw not. The [illegible]aph officers do [illegible]ntages will, of course, [illegible] recruitment of the Department. There is another point I desire to bring to notice. In my covenant it was intimated that Government would provide me with all necessary articles which might be required by me for the performance of my public duties. But if I am ordered to construct a line, I have to provide my tent at my own expense. No tentage allowance is granted to officers in this Department.

Sittings at Madras.

WITNESS No. XIX.—*7th August*, 1887.

Examination of G. L. TOWERS, ESQ., Member of the Society of Telegraph Engineers, Assistant Superintendent.

G. L. Towers, Esq.

The *President.*

What observations have you to make regarding the subject of the present inquiry ?—

Witness put in the following note :—

I was appointed an Assistant Superintendent by the Secretary of State on the 9th November, 1870, and to-day I am still an Assistant Superintendent, performing the same duties and having the same powers and responsibilities as when first appointed ; and, as matters are now, I can look forward to no change as to my duties until the year 1901, when I shall have completed 30 years' service and am 55 years of age ; for, unless the Department is reorganised or there are a considerable number of extraordinary retirements, I cannot possibly attain to the charge of even a small division.

I have twice been on field service—in Perak and in Afghanistan—for which services I have two medals ; my services in the former expedition were acknowledged in the Administration Report of the Department and in the latter by the Secretary of State for India.

I was also ordered to hold myself in readiness for charge of the field telegraph, if one was required to accompany the Indian Expeditionary Force to Egypt.

I have never been superseded. I have received a "special increment," and believe my services to be "approved."

The *President*—contd.

The present uncertainty about the measures to be taken to relieve the block in promotion amongst officers of the superior establishment tends to prevent retirements even in the ordinary course, Resolution No. 91, dated 25th January, 1885, on the Administration Report of the Telegraph Department, contains the following paragraph :—

"The Governor-General in Council cannot conclude his review of this record of excellent work performed without touching on a question which most nearly concerns the officers who have laboured thus successfully. His Excellency is aware that many officers in the Department have had their prospects seriously marred under the present organisation, and it would have afforded him great gratification if the present opportunity could have been taken for announcing that the remedial measures which have been under consideration for some time had been finally decided on. His Excellency trusts that the decision will not be much longer delayed."

This expression of sympathy has prevented a feeling of absolute despair about our future, and was read by all of us with thankfulness ; but at the same time the doubt as to what the "remedial measures" will be, which we all felt and still feel, has, I believe, decided more than one man, who had almost made up his mind to

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The *President*—contd.

retire, to stay on a little longer, in the hope that special inducements to retire will be offered.

Shortly following the resolution just mentioned, another came empowering the Director-General to grant personal allowances to men of over 15 years' service, sufficient to increase their pay to Rs. 600, and to men of 20 years' service, sufficient to raise their pay to Rs. 700. The fourth grade of Superintendents consisting of 16 men on Rs. 600 was divided into two grades of eight men in each on Rs. 600 and Rs. 700 respectively.

This resolution was so worded as to show that the relief granted was not a final settlement [illegible]

I fancy these personal allowances will operate to dissuade men appointed [illegible] from retiring, for they do not give [illegible] of retiring on the full pension of Rs. [illegible] of years' service, while they do encourage him to stay on because his staying will increase his pension. Without these personal allowances many of us after 20 years' service would have been drawing Rs. 600 a month without any prospect of a further advance for five years, and therefore we could not have got more than Rs. 3,600 as pension, no matter how many years we stayed on.

I do not make these remarks because I am not grateful for the personal allowance concession, for I am grateful. I merely wish to show that, while this uncertainty about the future of the Department continues, two causes, which may be called accidental, will hinder retirements—one, the retirement of seniors, the other, the retirement of the very men whose promotion is now blocked. The announcement of the final settlement of our case by Government would remove the former cause.

It is scarcely for us, who are suffering from a mistake in organisation for which we are in no way responsible, to propose remedial measures, seeing that the mistake is admitted, and that we believe that measures to remedy it are under consideration; but still we do talk of the measures we think would suffice and of how these could be carried out at the least expense to the state; and perhaps I may be permitted to mention the measures I have heard most generally supported, and the suggestions which have been made for curtailing expenditure.

The remedial measures most advocated are—

1. To offer special inducements to seniors to retire, leaving the offer open for acceptance for a limited period.

2. Admit to the favorable pension rules, the men appointed in India, of whom there are 14 altogether.

3. Limit appointments in the Direction to five years, *i. e.*, a Director, unless promoted to be a Deputy Director-General, should retire after five years, &c. The effect being that a Deputy Director-General might be ten years, and a Director-General 15 years altogether in the Direction.

4. Allow men whose promotion has been blocked, whose prospects are admittedly "seriously marred," to retire at once on the maximum pension of Rs. 4,000 if of 20 years' service, and on proportionate pensions if of between 15 and 20 years; and if these be not sufficient to remove the block, then—

The *President*—contd.

5. Retire compulsorily with a bonus all officers of over 30 years' service, or who will attain to 30 years' service within the next three years, and who have earned their maximum pensions. In short—

(i) About ten or twelve retirements amongst seniors, *i. e.*, officers above the rank of Assistant Superintendent.

(ii) Encouragement to blocked men to retire by permitting them to retire on pensions calculated on the supposition that they would earn a Rs. 4,000 pension at 20 years' service.

(iii) A re-arrangement of the personal allowance scheme, so as to make it certain that men ~~years' app~~in when they have put in 20 and 25 the maximu*med* service will be able to retire on respectively, pensions of Rs. 4,000 and 5,000, settlement of the go a long way towards a feel we must be satisf, with which we should it will not realize the ex, although, of course, we joined the Department. tations with which

As regards the limiting o[illegible]ntm in the Direction, the Director-Gene[illegible]pp's appo ment is already limited, and to limit the oth will help to keep up a steady flow of promotio and will, besides, ensure there always being i the Direction one officer who will have done real executive work within what may be called modern times; who will, in fact, have had personal experience of the conditions under which the executive work of the time is being carried on.

The compulsory retirement of seniors is, of course, a last resource, and nothing else; and it has only been talked of because of the hopeless position many of us are in. We simply feel that something must be done.

It must be remembered that the men affected have done a full term of Indian service, and that they will be able to retire on pensions in excess of the salaries they were, when joining, led to expect. But, as a matter of fact, with fair inducement to retire, there need practically be no compulsion.

Any remedial measures will cost money, but many of us believe that the numerical strength of the superior establishment may be reduced; in short, that if there are 10 or 20 extraordinary retirements, the sanctioned strength of the Assistant Superintendents might be reduced by that number. In fact, I believe that a redistribution of work could be made which would admit of the services of a number of officers being dispensed with. A very cursory examination of the returns of the Department which are published will show how *very* unequal are the sizes of divisions and sub-divisions. The returns I particularly refer to are the "Distribution Return of Lines and Offices" and the classified list and distribution return of establishment.

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